



## Appendix 1

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# Estimated Peak Contributions 2012

Pacific Power

## **Energy Efficiency Programs**

The MW reported savings of 8.46 (at generation) for energy efficiency programs during 2012 represents the summation of estimated MW values made available through the Company's business and residential energy efficiency programs; calculations for the business and residential programs differ.

The Company's business programs MW contributions are based on engineering estimates of capacity values for installed measures; project unique factors are individually calculated for custom projects while deemed factors are utilized for prescriptive measures. These calculations are based on actual installed measures in the reported year. For 2012, it is calculated that 3.45 MW of capacity contribution were made available through business program energy efficiency acquisitions. Specific hours during which business program measures contribute MW capacity are dependent upon several factors including specific business operations and general economic conditions.

For the residential programs, energy to capacity factor is utilized to calculate the MW savings made available through these programs. The energy to capacity factor utilized in the calculation (1.86 MW in 2012 for each average MWh of energy efficiency acquired) is the same as the average load profile factor of energy efficiency resources selected in the 2011 IRP, i.e. the average peak contribution of the energy efficiency resource selections across all measures and sectors. The utilization of this factor in the MW calculation assumes that the energy efficiency resources acquired through the Company's residential programs have the same average load profile as those energy efficiency resources selected in the 2011 IRP. Utilization of this factor in determining the MW contribution of energy efficiency programs for 2012 is detailed in the table below.

| <b>Line</b> | <b>Description</b>                                 | <b>Value</b> |
|-------------|--|--------------|
| 1           | First year EE program savings acquired during 2012 | 23,603       |
| 2           | Average MWh value (line 1 / 8760 hours)            | 2.69         |
| 3           | Peak MW contribution of 2012 EE acquisitions       | 5.01         |

As demonstrated, it is estimated that the residential energy efficiency program acquisitions in 2012 contributed 5.01 MW of capacity contribution. As with the business programs, when these savings occur on an hourly basis is dependent upon several factors including energy usage patterns of residential customers.

Together, the 3.45 MW's estimated for the business programs and the 5.01 MW's estimated for residential programs make up the 8.46 MW savings value of energy efficiency programs.



## Appendix 2

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# Energy Efficiency Cost Effectiveness

Pacific Power

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## Portfolio and Sector Level Cost Effectiveness

The overall energy efficiency portfolio and component sectors were cost effective on a PacifiCorp Total Resource Cost Test (PTRC), Total Resource Cost Test (TRC), Utility Cost Test (UCT), and Participant Cost Test (PCT) basis.

The following table provides the results of all five cost effectiveness tests.

| Portfolio and Sector Cost Effectiveness Summary                                   | Cost Effectiveness Test |      |      |      |      |
|---|-------------------------|------|------|------|------|
|   | PTRC                    | TRC  | UCT  | RIM  | PCT  |
| Total Portfolio Including NEEA  | 2.15                    | 1.95 | 3.47 | 0.92 | 2.81 |
| C&I Energy Efficiency Portfolio   | 2.11                    | 1.92 | 4.46 | 1.02 | 2.08 |
| Residential Energy Efficiency Portfolio (including NEEA)                          | 3.06                    | 2.78 | 3.76 | 0.88 | 6.55 |
| Total Portfolio Including NEEA and Non-Energy Benefits                            | 2.22                    | 2.02 | 3.47 | 0.92 | 2.88 |
| Residential Energy Efficiency Portfolio with Non-Energy Benefits (including NEEA) | 3.34                    | 3.06 | 3.76 | 0.88 | 7.01 |

### Sector and Program Level Cost Effectiveness Summaries:

The cost effectiveness results for the sector level are aggregations of the costs and benefits from the component programs. The inputs and assumptions that support these results are contained in the program level cost effectiveness results.

The tables below present the cost-effectiveness analysis for the Washington Energy Efficiency Portfolio based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

The portfolio is cost-effective from all perspectives, except for the RIM.

**Table 1: Common Inputs**

| Parameter  | Value    |
|--|----------|
| Discount Rate  | 7.17%    |
| Residential Line Loss                                | 9.67%    |
| Commercial Line Loss                                 | 9.53%    |
| Industrial Line Loss                                 | 8.16%    |
| Residential Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0863 |
| Commercial Energy Rate (\$/kWh)<br>(base year 2012)  | \$0.0768 |
| Industrial Energy Rate (\$/kWh)<br>(base year 2012)  | \$0.0649 |
| Inflation Rate <sup>1</sup>                          | 1.80%    |

**Table 2: Portfolio Level Costs 2012**

| Cost   | Value       |
|--|-------------|
| Company Initiatives - Distribution Efficiency                | \$146,618   |
| Company Initiatives - Production Efficiency                  | \$231,495   |
| School Energy Education                                      | \$252,946   |
| New Programs   | (\$1,836)   |
| Outreach and Communication                                   | \$209,022   |
| Evaluation, Potential Study & Technical<br>Reference Library | \$751,468   |
| Total  | \$1,589,713 |

**Table 3: NEEA kWh Savings and Costs**

| Program          | Value       |
|------------------|-------------|
| kWh              | 12,439,200  |
| Incremental Cost | \$1,218,412 |

**Table 4: 2012 Total Portfolio Including NEEA**

|   | Levelized<br>\$/kWh | Costs        | Benefits     | Net Benefits  | Benefit/Cost<br>Ratio |
|---|---------------------|--------------|--------------|---------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0478            | \$17,721,235 | \$38,328,256 | \$20,607,021  | 2.16                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0478            | \$17,721,235 | \$34,843,869 | \$17,122,634  | 1.97                  |
| Utility Cost Test (UCT)                                 | \$0.0268            | \$9,921,150  | \$34,843,869 | \$24,922,719  | 3.51                  |
| Rate Impact Test (RIM)                                  |                     | \$37,635,746 | \$34,843,869 | (\$2,791,877) | 0.93                  |
| Participant Cost Test (PCT)                             |                     | \$11,308,061 | \$31,723,062 | \$20,415,001  | 2.81                  |
| Lifecycle Revenue Impacts (\$/kWh)                      |                     | \$0.00003654 |              |               |                       |

<sup>1</sup> Used to escalate future year energy rates.

**Table 5: 2012 C&I Energy Efficiency Portfolio**

|   | Levelized<br>\$/kWh | Costs          | Benefits     | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------------|--------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0497            | \$11,652,543   | \$24,644,110 | \$12,991,567 | 2.11                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0497            | \$11,652,543   | \$22,403,736 | \$10,751,193 | 1.92                  |
| Utility Cost Test (UCT)                                 | \$0.0214            | \$5,024,426    | \$22,403,736 | \$17,379,310 | 4.46                  |
| Rate Impact Test (RIM)                                  |                     | \$21,909,837   | \$22,403,736 | \$493,899    | 1.02                  |
| Participant Cost Test (PCT)                             |                     | \$9,476,581    | \$19,733,875 | \$10,257,294 | 2.08                  |
| Lifecycle Revenue Impacts (\$/kWh)                      |                     | (\$0.00000780) |              |              |                       |

**Table 6: 2012 Residential Energy Efficiency Portfolio  
(including NEEA)**

|   | Levelized<br>\$/kWh | Costs        | Benefits     | Net Benefits  | Benefit/Cost<br>Ratio |
|---|---------------------|--------------|--------------|---------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0329            | \$4,478,979  | \$13,684,146 | \$9,205,167   | 3.06                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0329            | \$4,478,979  | \$12,440,133 | \$7,961,153   | 2.78                  |
| Utility Cost Test (UCT)                                 | \$0.0243            | \$3,307,011  | \$12,440,133 | \$9,133,121   | 3.76                  |
| Rate Impact Test (RIM)                                  |                     | \$14,136,196 | \$12,440,133 | (\$1,696,063) | 0.88                  |
| Participant Cost Test (PCT)                             |                     | \$1,831,480  | \$11,989,187 | \$10,157,707  | 6.55                  |
| Lifecycle Revenue Impacts (\$.kWh)                      |                     | \$0.00002220 |              |               |                       |

The following tables reflect the cost-effectiveness analysis with non-energy benefits.

**Table 7: 2012 Total Portfolio Including NEEA and Non-Energy Benefits**

|   | Levelized<br>\$/kWh | Costs        | Benefits     | Net Benefits  | Benefit/Cost<br>Ratio |
|---|---------------------|--------------|--------------|---------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0478            | \$17,721,235 | \$39,610,549 | \$21,889,314  | 2.24                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0478            | \$17,721,235 | \$36,126,162 | \$18,404,927  | 2.04                  |
| Utility Cost Test (UCT)                                 | \$0.0268            | \$9,921,150  | \$34,847,432 | \$24,926,282  | 3.51                  |
| Rate Impact Test (RIM)                                  |                     | \$37,635,746 | \$34,847,432 | (\$2,788,314) | 0.93                  |
| Participant Cost Test (PCT)                             |                     | \$11,308,061 | \$32,564,389 | \$21,256,328  | 2.88                  |
| Lifecycle Revenue Impacts (\$.kWh)                      |                     | \$0.00003649 |              |               |                       |

**Table 8: 2012 Residential Energy Efficiency Portfolio with Non-Energy Benefits (including NEEA)**

|  | Levelized \$/kWh | Costs        | Benefits     | Net Benefits  | Benefit/Cost Ratio |
|--|------------------|--------------|--------------|---------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0329         | \$4,478,979  | \$14,966,439 | \$10,487,460  | 3.34               |
| Total Resource Cost Test (TRC) No Adder              | \$0.0329         | \$4,478,979  | \$13,722,426 | \$9,243,446   | 3.06               |
| Utility Cost Test (UCT)                              | \$0.0243         | \$3,307,011  | \$12,443,696 | \$9,136,684   | 3.76               |
| Rate Impact Test (RIM)                               |                  | \$14,136,196 | \$12,443,696 | (\$1,692,500) | 0.88               |
| Participant Cost Test (PCT)                          |                  | \$1,831,480  | \$12,830,514 | \$10,999,034  | 7.01               |
| Lifecycle Revenue Impacts (\$/kWh)                   |                  | \$0.00002215 |              |               |                    |

The tables below summarize the non-energy benefits for the Low Income, Home Energy Savings and Energy Education programs.

**Table 9: Low Income Weatherization Non-Energy Benefits**

| Non-Energy Benefit   | Program Impact | Perspective Adjusted |
|----------------------|----------------|----------------------|
| Arrearage Reduction  | \$3,325        | TRC, PTRC, UCT, RIM  |
| Capital Cost Savings | \$238          | TRC, PTRC, UCT, RIM  |
| Economic Impact      | \$437,403      | TRC, PTRC            |
| Home Repair Costs    | \$50,326       | TRC, PTRC, PCT       |
| Total                | \$491,293      |                      |

**Table 10: Home Energy Savings (Appliance) Non-Energy Benefits**

| Non-Energy Benefit                   | Non-Energy Benefits per Measure | Total Installs | Measure Life | Total Present Value Benefits |
|--------------------------------------|---------------------------------|----------------|--------------|------------------------------|
| Clothes Washer-Tier Two (2.0 + MEF)  | \$60.26                         | 1,007          | 14           | \$562,979                    |
| Clothes Washer (MEF ≥ 2.46 & WF ≤ 4) | \$81.00                         | 302            | 14           | \$226,951                    |
| Dishwasher                           | \$0.31                          | 405            | 12           | \$1,042                      |
| New Homes Dishwashers                | \$0.31                          | 11             | 12           | \$28                         |
| Total                                |                                 |                |              | \$791,001                    |



## Program Level Cost Effectiveness

### Home Energy Savings Program

The tables below present the cost-effectiveness findings of the Washington Home Energy Savings program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential lighting, whole house, or cooling load factor decrements (medium carbon), depending on the measure group. Table 1 lists modeling inputs.

**Table 1: Home Energy Savings Inputs**

| Parameter  | Value    |
|--|----------|
| Discount Rate  | 7.17%    |
| Line Loss  | 9.67%    |
| Residential Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0863 |
| Inflation Rate <sup>2</sup>                          | 1.80%    |

**Table 2: Home Energy Savings Annual Program Costs**

|                | Program Costs | Utility Admin | Incentives | Total Utility Costs | Net Participant Incremental Cost |
|----------------|---------------|---------------|------------|---------------------|----------------------------------|
| Appliance      | \$132,943     | \$33,560      | \$149,469  | \$315,972           | \$397,423                        |
| HVAC           | \$176,830     | \$44,640      | \$76,975   | \$298,445           | \$467,405                        |
| Weatherization | \$84,478      | \$21,326      | \$86,041   | 191,844             | 204,052                          |
| New Homes      | \$3,704       | \$935         | \$3,788    | \$8,428             | \$20,563                         |
| Lighting       | \$24,586      | \$6,207       | \$289,699  | \$320,491           | \$742,037                        |
| Total          | \$422,541     | \$106,668     | \$605,972  | \$1,135,180         | \$1,831,480                      |

**Table 3: Home Energy Savings Savings by Measure Type**

|                | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings | Measure Life |
|----------------|-------------------|------------------|------------------------|-------------------------|-----------------|--------------|
| Appliance      | 453,968           | 100%             | 453,968                | 100%                    | 453,968         | 15           |
| HVAC           | 603,834           | 100%             | 603,834                | 100%                    | 603,834         | 18           |
| Weatherization | 288,472           | 100%             | 288,472                | 100%                    | 288,472         | 45           |
| New Homes      | 12,650            | 100%             | 12,650                 | 100%                    | 12,650          | 41           |
| lighting       | 4,692,487         | 100%             | 4,692,487              | 100%                    | 4,692,487       | 5            |
| Total          | 6,051,411         |                  | 6,051,411              |                         | 6,051,411       |              |

<sup>2</sup> Used to escalate future year energy rates.

**Table 4: Home Energy Savings**

|   | Levelized<br>\$/kWh | Costs       | Benefits    | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-------------|-------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0636            | \$2,360,688 | \$4,001,094 | \$1,640,406  | 1.69                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0636            | \$2,360,688 | \$3,637,358 | \$1,276,670  | 1.54                  |
| Utility Cost Test (UCT)                                 | \$0.0306            | \$1,135,180 | \$3,637,358 | \$2,502,178  | 3.20                  |
| Rate Impact Test (RIM)                                  |                     | \$4,271,226 | \$3,637,358 | (\$633,867)  | 0.85                  |
| Participant Cost Test (PCT)                             |                     | \$1,831,480 | \$3,742,017 | \$1,910,537  | 2.04                  |
| Lifecycle Revenue Impacts<br>(\$/kWh)                   |                     |             |             | \$0.0000083  |                       |
| Discounted Participant Payback<br>(years)               |                     |             |             | 2.44         |                       |

**Table 5: Lighting (West Res Lighting 48% LF Decrement)**

|   | Levelized<br>\$/kWh | Costs       | Benefits    | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-------------|-------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0366            | \$772,830   | \$1,897,676 | \$1,124,846  | 2.46                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0366            | \$772,830   | \$1,725,160 | \$952,330    | 2.23                  |
| Utility Cost Test (UCT)                                 | \$0.0152            | \$320,491   | \$1,725,160 | \$1,404,669  | 5.38                  |
| Rate Impact Test (RIM)                                  |                     | \$2,034,268 | \$1,725,160 | (\$309,109)  | 0.85                  |
| Participant Cost Test (PCT)                             |                     | \$742,037   | \$2,003,476 | \$1,261,439  | 2.70                  |
| Discounted Participant Payback<br>(years)               |                     |             |             | 1.123        |                       |

**Table 6: Appliance (West Res Whole House 49% LF Decrement)**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.1195            | \$563,926 | \$501,906 | (\$62,020)   | 0.89                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.1195            | \$563,926 | \$456,278 | (\$107,648)  | 0.81                  |
| Utility Cost Test (UCT)                                 | \$0.0669            | \$315,972 | \$456,278 | \$140,306    | 1.44                  |
| Rate Impact Test (RIM)                                  |                     | \$727,352 | \$456,278 | (\$271,074)  | 0.63                  |
| Participant Cost Test (PCT)                             |                     | \$397,423 | \$560,849 | \$163,426    | 1.41                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 7.43         |                       |

**Table 7: Home Improvement (West Res Cooling 7% LF Decrement)**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0765            | \$309,856 | \$601,155 | \$291,299    | 1.94                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0765            | \$309,856 | \$546,505 | \$236,649    | 1.76                  |
| Utility Cost Test (UCT)                                 | \$0.0474            | \$191,844 | \$546,505 | \$354,660    | 2.85                  |
| Rate Impact Test (RIM)                                  |                     | \$556,257 | \$546,505 | (\$9,753)    | 0.98                  |
| Participant Cost Test (PCT)                             |                     | \$204,052 | \$450,453 | \$246,401    | 2.21                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 5.28         |                       |

**Table 8: HVAC (West Res Cooling 7% LF Decrement)**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0973            | \$688,875 | \$973,996 | \$285,122    | 1.41                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0973            | \$688,875 | \$885,451 | \$196,577    | 1.29                  |
| Utility Cost Test (UCT)                                 | \$0.0422            | \$298,445 | \$885,451 | \$587,007    | 2.97                  |
| Rate Impact Test (RIM)                                  |                     | \$928,940 | \$885,451 | (\$43,489)   | 0.95                  |
| Participant Cost Test (PCT)                             |                     | \$467,405 | \$707,471 | \$240,066    | 1.51                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 9.16         |                       |

**Table 9: New Construction (West Res Cooling 7% LF Decrement)**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.1420            | \$25,202 | \$26,362 | \$1,159      | 1.05                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.1420            | \$25,202 | \$23,965 | (\$1,237)    | 0.95                  |
| Utility Cost Test (UCT)                                 | \$0.0475            | \$8,428  | \$23,965 | \$15,537     | 2.84                  |
| Rate Impact Test (RIM)                                  |                     | \$24,408 | \$23,965 | (\$443)      | 0.98                  |
| Participant Cost Test (PCT)                             |                     | \$20,563 | \$19,768 | (\$794)      | 0.96                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | na           |                       |

The results above do not reflect non-energy benefits. Appliances in this program have significant non-energy benefits (water). Those benefits, by measure, are outlined in the table below (non-energy benefits per measure values are from the Sixth Power Plan).

**Table 10: Non-Energy Benefits**

| Non-Energy Benefit                             | Non-Energy Benefits per Measure | Total Installs | Measure Life | Total Present Value Benefits |
|--|---------------------------------|----------------|--------------|------------------------------|
| Clothes Washer-Tier Two (2.0 + MEF)            | \$60.26                         | 1,007          | 14           | \$562,979                    |
| Clothes Washer (MEF $\geq$ 2.46 & WF $\leq$ 4) | \$81.00                         | 302            | 14           | \$226,951                    |
| Dishwasher                                     | \$0.31                          | 405            | 12           | \$1,042                      |
| New Homes Dishwashers                          | \$0.31                          | 11             | 12           | \$28                         |
| <b>Total</b>                                   |                                 |                |              | <b>\$791,001</b>             |

When these non-energy benefits are incorporated in the PTRC, TRC, and PCT cost-effectiveness analysis for appliances, the TRC improves to 2.21, as shown in Table 11.

**Table 11: Appliance with Non-Energy Benefits**

|  | Levelized \$/kWh | Costs     | Benefits    | Net Benefits | Benefit/Cost Ratio |
|--|------------------|-----------|-------------|--------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.1195         | \$563,926 | \$1,292,907 | \$728,981    | 2.29               |
| Total Resource Cost Test (TRC) No Adder              | \$0.1195         | \$563,926 | \$1,247,279 | \$683,353    | 2.21               |
| Utility Cost Test (UCT)                              | \$0.0669         | \$315,972 | \$456,278   | \$140,306    | 1.44               |
| Rate Impact Test (RIM)                               |                  | \$727,352 | \$456,278   | (\$271,074)  | 0.63               |
| Participant Cost Test (PCT)                          |                  | \$397,423 | \$1,351,850 | \$954,427    | 3.40               |
| Discounted Participant Payback (years)               |                  |           |             | 7.43         |                    |

Similarly, the overall program TRC improves to 1.88 when non-energy benefits are included, as shown in Table 12.

**Table 12: Home Energy Savings with Non-Energy Benefits**

|  | Levelized \$/kWh | Costs       | Benefits    | Net Benefits | Benefit/Cost Ratio |
|--|------------------|-------------|-------------|--------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0636         | \$2,360,688 | \$4,792,095 | \$2,431,407  | 2.03               |
| Total Resource Cost Test (TRC) No Adder              | \$0.0636         | \$2,360,688 | \$4,428,359 | \$2,067,671  | 1.88               |
| Utility Cost Test (UCT)                              | \$0.0306         | \$1,135,180 | \$3,637,358 | \$2,502,178  | 3.20               |
| Rate Impact Test (RIM)                               |                  | \$4,271,226 | \$3,637,358 | (\$633,867)  | 0.85               |
| Participant Cost Test (PCT)                          |                  | \$1,831,480 | \$4,533,018 | \$2,701,538  | 2.48               |
| Lifecycle Revenue Impacts (\$/kWh)                   |                  |             |             | \$0.0000083  |                    |
| Discounted Participant Payback (years)               |                  |             |             | 0.95         |                    |

## Home Energy Reporting

The tables below present the cost-effectiveness findings of the Washington Home Energy Reporting program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west whole house 49% load factor decrements (medium carbon). Table 1 lists modeling inputs.

**Table 1: Home Energy Reporting Inputs**

| Parameter  | Value    |
|--|----------|
| Discount Rate  | 7.17%    |
| Residential Line Loss                                | 9.67%    |
| Residential Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0863 |
| Inflation Rate <sup>3</sup>                          | 1.80%    |

**Table 2: Home Energy Reporting  
Annual Program Costs**

|                       | Program Costs | Marketing | Utility Admin | Incentives | Total Utility Costs | Net Participant Incremental Cost |
|-----------------------|---------------|-----------|---------------|------------|---------------------|----------------------------------|
| Home Energy Reporting | \$57,690      | \$28,976  | \$13,591      | \$0        | \$100,257           | \$0                              |

**Table 3: Home Energy Reporting  
Savings by Measure Type**

|                       | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings | Measure Life |
|-----------------------|-------------------|------------------|------------------------|-------------------------|-----------------|--------------|
| Home Energy Reporting | 1,778,482         | 100%             | 1,778,482              | 100%                    | 1,778,482       | 1            |

<sup>3</sup> Used to escalate future year energy rates.

**Table 4: Home Energy Reporting Cost-Effectiveness**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC) +<br>Conservation Adder | \$0.0514            | \$100,257 | \$156,860 | \$56,603     | 1.56                  |
| Total Resource Cost Test (TRC) No Adder                 | \$0.0514            | \$100,257 | \$142,600 | \$42,343     | 1.42                  |
| Utility Cost Test (UCT)                                 | \$0.0514            | \$100,257 | \$142,600 | \$42,343     | 1.42                  |
| Rate Impact Test (RIM)                                  |                     | \$253,740 | \$142,600 | (\$111,140)  | 0.56                  |
| Participant Cost Test (PCT)                             |                     | \$0       | \$153,483 | \$153,483    | N/A                   |
| Lifecycle Revenue Impacts (\$/kWh)                      |                     |           |           | \$0.00002326 |                       |
| Discounted Participant Payback (years)                  |                     |           |           | N/A          |                       |

## See ya later, refrigerator®

The tables below present the cost-effectiveness findings of the Washington See Ya Later Refrigerator program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential whole house 49% load factor decrement (medium carbon). Table 1 lists modeling inputs.

The program is cost-effective from the PTRC, TRC, UCT, and PCT perspectives.

**Table 1: See-Ya-Later Inputs**

| Parameter  | Value    |
|--|----------|
| Discount Rate  | 7.17%    |
| Residential Line Loss                                | 9.67%    |
| Residential Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0863 |
| Inflation Rate <sup>4</sup>                          | 1.80%    |

**Table 2: See-Ya-Later  
Annual Program Costs**

|               | Program Costs | Utility Admin | Incentives | Total Utility Costs | Net Participant Incremental Cost |
|---------------|---------------|---------------|------------|---------------------|----------------------------------|
| Refrigerators | \$133,502     | \$26,635      | \$36,870   | \$197,007           | \$0                              |
| Freezers      | \$22,932      | \$4,575       | \$8,460    | \$35,967            | \$0                              |
| Kits          | \$4,893       | \$976         | \$8,210    | \$14,080            | \$0                              |
| Total         | \$161,328     | \$32,186      | \$53,540   | \$247,055           | \$0                              |

**Table 3: See-Ya-Later  
Savings by Measure Type**

|               | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings | Measure Life |
|---------------|-------------------|------------------|------------------------|-------------------------|-----------------|--------------|
| Refrigerators | 889,796           | 100%             | 889,796                | 100%                    | 889,796         | 6            |
| Freezers      | 152,844           | 100%             | 152,844                | 100%                    | 152,844         | 9            |
| Kits          | 32,614            | 100%             | 32,614                 | 100%                    | 32,614          | 5            |
| Total         | 1,075,254         |                  | 1,075,254              |                         | 1,075,254       |              |

<sup>4</sup> Used to escalate future year energy rates.

**Table 4: SYLR Program Cost-Effectiveness**

|  | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0308            | \$193,514 | \$594,498 | \$400,984    | 3.07                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.0308            | \$193,514 | \$540,453 | \$346,938    | 2.79                  |
| Utility Cost Test (UCT)                              | \$0.0394            | \$247,055 | \$540,453 | \$293,398    | 2.19                  |
| Rate Impact Test (RIM)                               |                     | \$764,024 | \$540,453 | (\$223,571)  | 0.71                  |
| Participant Cost Test (PCT)                          |                     | \$0       | \$570,510 | \$570,510    | N/A                   |
| Lifecycle Revenue Impacts (\$/kWh)                   |                     |           |           | \$0.00000625 |                       |
| Discounted Participant Payback (years)               |                     |           |           | N/A          |                       |

**Table 5: Refrigerators**

|  | Levelized<br>\$/kWh | Costs     | Benefits  | Net<br>Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|-----------|-----------|-----------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0323            | \$160,137 | \$465,303 | \$305,166       | 2.91                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.0323            | \$160,137 | \$423,003 | \$262,865       | 2.64                  |
| Utility Cost Test (UCT)                              | \$0.0397            | \$197,007 | \$423,003 | \$225,995       | 2.15                  |
| Rate Impact Test (RIM)                               |                     | \$603,742 | \$423,003 | (\$180,739)     | 0.70                  |
| Participant Cost Test (PCT)                          |                     | \$0       | \$443,605 | \$443,605       | na                    |
| Discounted Participant Payback (years)               |                     |           |           | na              |                       |

**Table 6: Freezers**

|  | Levelized<br>\$/kWh | Costs     | Benefits  | Net<br>Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|-----------|-----------|-----------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0237            | \$27,507  | \$114,841 | \$87,334        | 4.17                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.0237            | \$27,507  | \$104,401 | \$76,894        | 3.80                  |
| Utility Cost Test (UCT)                              | \$0.0310            | \$35,967  | \$104,401 | \$68,434        | 2.90                  |
| Rate Impact Test (RIM)                               |                     | \$133,471 | \$104,401 | (\$29,069)      | 0.78                  |
| Participant Cost Test (PCT)                          |                     | \$0       | \$105,963 | \$105,963       | na                    |
| Discounted Participant Payback (years)               |                     |           |           | na              |                       |



**Table 7: Kits**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net<br>Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|-----------------|-----------------------|
| Total Resource Cost Test (PTRC) +<br>Conservation Adder | \$0.0375            | \$5,870  | \$14,354 | \$8,484         | 2.45                  |
| Total Resource Cost Test (TRC) No Adder                 | \$0.0375            | \$5,870  | \$13,049 | \$7,179         | 2.22                  |
| Utility Cost Test (UCT)                                 | \$0.0900            | \$14,080 | \$13,049 | (\$1,031)       | 0.93                  |
| Rate Impact Test (RIM)                                  |                     | \$26,811 | \$13,049 | (\$13,762)      | 0.49                  |
| Participant Cost Test (PCT)                             |                     | \$0      | \$20,942 | \$20,942        | na                    |
| Discounted Participant Payback (years)                  |                     |          |          | na              |                       |

## Low-Income Weatherization

The tables below present the cost-effectiveness findings of the Washington Low Income Weatherization program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west residential whole house 49% load factor decrements (medium carbon). Table 1 lists modeling inputs.

The program is not cost-effective from the TRC, UCT or RIM perspectives.

**Table 1: Low Income Weatherization Inputs**

| Parameter  | Value    |
|--|----------|
| Discount Rate  | 7.17%    |
| Residential Line Loss                                | 9.67%    |
| Residential Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0863 |
| Inflation Rate <sup>5</sup>                          | 1.80%    |

**Table 2: Low Income Weatherization  
Annual Program Costs**

|                           | Program Costs | Utility Admin | Incentives | Total Utility Costs | Net Participant Incremental Cost |
|---------------------------|---------------|---------------|------------|---------------------|----------------------------------|
| Low Income weatherization | \$70,057      | \$35,560      | \$500,491  | \$606,108           | \$0                              |

**Table 3: Low Income Weatherization  
Savings by Measure Type**

|                           | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings | Measure Life |
|---------------------------|-------------------|------------------|------------------------|-------------------------|-----------------|--------------|
| Low Income weatherization | 206,080           | 100%             | 206,080                | 100%                    | 206,080         | 30           |

<sup>5</sup> Used to escalate future year energy rates.

**Table 4: Low Income Weatherization**

|  | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.2096            | \$606,108 | \$341,891 | (\$264,217)  | 0.56                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.2096            | \$606,108 | \$310,810 | (\$295,298)  | 0.51                  |
| Utility Cost Test (UCT)                              | \$0.2096            | \$606,108 | \$310,810 | (\$295,298)  | 0.51                  |
| Rate Impact Test (RIM)                               |                     | \$866,439 | \$310,810 | (\$555,629)  | 0.36                  |
| Participant Cost Test (PCT)                          |                     | \$0       | \$760,821 | \$760,821    | N/A                   |
| Lifecycle Revenue Impacts (\$/kWh)                   |                     |           |           | \$0.00000727 |                       |
| Discounted Participant Payback (years)               |                     |           |           | N/A          |                       |

These results do not incorporate the non-energy benefits that were analyzed by Cadmus in the 2009-10 low income program evaluation, including the program's impact on arrearages, capital costs, home repair costs, and economic impacts. These benefits are presented in Table 5.

**Table 5. Total Program Non-Energy Benefits**

| Non-Energy Benefit   | Program Impact | Perspective Adjusted |
|----------------------|----------------|----------------------|
| Arrearage Reduction  | \$3,325        | TRC, PTRC, UCT, RIM  |
| Capital Cost Savings | \$238          | TRC, PTRC, UCT, RIM  |
| Economic Impact      | \$437,403      | TRC, PTRC            |
| Home Repair Costs    | \$50,326       | TRC, PTRC, PCT       |
| Total                | \$491,293      |                      |

When these benefits are included in the analysis the program becomes more cost-effective. As presented in Table 6, the program passes the TRC test with a benefit cost ratio of 1.32.

**Table 6: Low Income Weatherization with Non Energy Benefits**

|  | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.2096            | \$606,108 | \$833,183 | \$227,075    | 1.37                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.2096            | \$606,108 | \$802,102 | \$195,994    | 1.32                  |
| Utility Cost Test (UCT)                              | \$0.2096            | \$606,108 | \$314,373 | (\$291,735)  | 0.52                  |
| Rate Impact Test (RIM)                               |                     | \$866,439 | \$314,373 | (\$552,066)  | 0.36                  |
| Participant Cost Test (PCT)                          |                     | \$0       | \$811,147 | \$811,147    | na                    |
| Lifecycle Revenue Impacts (\$/kWh)                   |                     |           |           | \$0.00000723 |                       |
| Discounted Participant Payback (years)               |                     |           |           | na           |                       |

## FinAnswer Express

The tables below present the cost-effectiveness findings of the WA FinAnswer Express program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west system 71% load factor decrement (medium carbon. Table 1 lists modeling inputs.

The program is cost-effective from all perspectives except for the RIM perspective.

**Table 1: FinAnswer Express Inputs**

| Parameter   | Value    |
|---|----------|
| Discount Rate                                       | 7.17%    |
| Commercial Line Loss                                | 9.53%    |
| Industrial Line Loss                                | 8.16%    |
| Commercial Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0768 |
| Industrial Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0649 |
| Inflation Rate <sup>6</sup>                         | 1.80%    |

**Table 2: FinAnswer Express  
Annual Program Costs**

|              | Program Costs    | Utility Admin    | Marketing        | Engineering      | Incentives         | Total Utility Costs | Net Participant Incremental Cost |
|--------------|------------------|------------------|------------------|------------------|--------------------|---------------------|----------------------------------|
| Appliance    | \$3              | \$0              | \$0              | \$1              | \$25               | \$29                | \$50                             |
| Envelope     | \$322            | \$60             | \$42             | \$113            | \$4,088            | \$4,624             | \$11,827                         |
| Food Service | \$3,682          | \$690            | \$477            | \$1,291          | \$4,605            | \$10,745            | \$31,341                         |
| HVAC         | \$751            | \$141            | \$97             | \$263            | \$7,321            | \$8,573             | \$147,692                        |
| Lighting     | \$716,706        | \$134,219        | \$92,891         | \$251,374        | \$1,265,467        | \$2,460,656         | \$4,969,903                      |
| Motor        | \$34,640         | \$6,487          | \$4,490          | \$12,149         | \$20,645           | \$78,411            | \$57,482                         |
| Office       | \$13,880         | \$2,599          | \$1,799          | \$4,868          | \$7,735            | \$30,881            | \$20,498                         |
| Compressed   | \$6,979          | \$1,307          | \$905            | \$2,448          | \$16,336           | \$27,974            | \$46,241                         |
| Farm & Dairy | \$2,652          | \$497            | \$344            | \$930            | \$4,138            | \$8,561             | \$83,325                         |
| Irrigation   | \$7,191          | \$1,347          | \$932            | \$2,522          | \$8,630            | \$20,621            | \$44,733                         |
| <b>Total</b> | <b>\$786,804</b> | <b>\$147,346</b> | <b>\$101,976</b> | <b>\$275,960</b> | <b>\$1,338,991</b> | <b>\$2,651,077</b>  | <b>\$5,413,092</b>               |

<sup>6</sup> Used to escalate future year energy rates.

**Table 3: FinAnswer Express Savings by Measure Type**

|                | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings | Measure Life |
|----------------|-------------------|------------------|------------------------|-------------------------|-----------------|--------------|
| Appliance      | 42                | 97%              | 40                     | 100%                    | 40              | 9            |
| Envelope       | 5,020             | 97%              | 4,869                  | 100%                    | 4,869           | 20           |
| Food Service   | 57,454            | 97%              | 55,730                 | 100%                    | 55,730          | 12           |
| HVAC           | 15,783            | 72%              | 11,364                 | 100%                    | 11,364          | 15           |
| Lighting       | 11,069,397        | 98%              | 10,848,009             | 100%                    | 10,848,009      | 14           |
| Motor          | 340,459           | 154%             | 524,307                | 100%                    | 524,307         | 15           |
| Office         | 216,580           | 97%              | 210,083                | 100%                    | 210,083         | 5            |
| Compressed Air | 108,899           | 97%              | 105,632                | 100%                    | 105,632         | 9            |
| Farm & Dairy   | 41,385            | 97%              | 40,143                 | 100%                    | 40,143          | 10           |
| Irrigation     | 112,202           | 97%              | 108,836                | 100%                    | 108,836         | 5            |
| Total          | 11,967,220        |                  | 11,909,013             |                         | 11,909,013      |              |

**Table 4: FinAnswer Express Cost-Effectiveness**

|  | Levelized \$/kWh | Costs        | Benefits     | Net Benefits | Benefit/Cost Ratio |
|--|------------------|--------------|--------------|--------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0566         | \$6,725,178  | \$12,644,334 | \$5,919,156  | 1.88               |
| Total Resource Cost Test (TRC) No Adder              | \$0.0566         | \$6,725,178  | \$11,494,849 | \$4,769,671  | 1.71               |
| Utility Cost Test (UCT)                              | \$0.0223         | \$2,651,077  | \$11,494,849 | \$8,843,772  | 4.34               |
| Rate Impact Test (RIM)                               |                  | \$11,636,564 | \$11,494,849 | (\$141,714)  | 0.99               |
| Participant Cost Test (PCT)                          |                  | \$5,413,092  | \$10,324,477 | \$4,911,385  | 1.91               |
| Lifecycle Revenue Impacts (\$/kWh)                   |                  |              |              | \$0.00000224 |                    |
| Discounted Participant Payback (years)               |                  |              |              | 4.43         |                    |

**Table 5: Appliance**

|  | Levelized \$/kWh | Costs | Benefits | Net Benefits | Benefit/Cost Ratio |
|--|------------------|-------|----------|--------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.1781         | \$54  | \$30     | (\$25)       | 0.55               |
| Total Resource Cost Test (TRC) No Adder              | \$0.1781         | \$54  | \$27     | (\$27)       | 0.50               |
| Utility Cost Test (UCT)                              | \$0.0963         | \$29  | \$27     | (\$2)        | 0.92               |
| Rate Impact Test (RIM)                               |                  | \$52  | \$27     | (\$25)       | 0.52               |
| Participant Cost Test (PCT)                          |                  | \$50  | \$48     | (\$2)        | 0.96               |
| Discounted Participant Payback (years)               |                  |       |          | N/A          |                    |

**Table 6: Envelope**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.2069            | \$12,363 | \$6,726  | (\$5,638)    | 0.54                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.2069            | \$12,363 | \$6,114  | (\$6,249)    | 0.49                  |
| Utility Cost Test (UCT)                                 | \$0.0774            | \$4,624  | \$6,114  | \$1,490      | 1.32                  |
| Rate Impact Test (RIM)                                  |                     | \$9,418  | \$6,114  | (\$3,304)    | 0.65                  |
| Participant Cost Test (PCT)                             |                     | \$11,827 | \$8,881  | (\$2,946)    | 0.75                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | N/A          |                       |

**Table 7: Food Service**

|  | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|--|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0728            | \$37,481 | \$52,722 | \$15,241     | 1.41                  |
| Total Resource Cost Test (TRC) No Adder              | \$0.0728            | \$37,481 | \$47,929 | \$10,448     | 1.28                  |
| Utility Cost Test (UCT)                              | \$0.0209            | \$10,745 | \$47,929 | \$37,184     | 4.46                  |
| Rate Impact Test (RIM)                               |                     | \$50,069 | \$47,929 | (\$2,141)    | 0.96                  |
| Participant Cost Test (PCT)                          |                     | \$31,341 | \$43,929 | \$12,588     | 1.40                  |
| Discounted Participant Payback (years)               |                     |          |          | N/A          |                       |

**Table 8: HVAC**

|   | Levelized<br>\$/kWh | Costs     | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$1.2391            | \$148,944 | \$12,961 | (\$135,983)  | 0.09                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$1.2391            | \$148,944 | \$11,783 | (\$137,161)  | 0.08                  |
| Utility Cost Test (UCT)                                 | \$0.0713            | \$8,573   | \$11,783 | \$3,210      | 1.37                  |
| Rate Impact Test (RIM)                                  |                     | \$17,935  | \$11,783 | (\$6,152)    | 0.66                  |
| Participant Cost Test (PCT)                             |                     | \$147,692 | \$16,683 | (\$131,009)  | 0.11                  |
| Discounted Participant Payback<br>(years)               |                     |           |          | N/A          |                       |

**Table 9: Lighting**

|   | Levelized<br>\$/kWh | Costs        | Benefits     | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|--------------|--------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0560            | \$6,165,092  | \$11,750,594 | \$5,585,502  | 1.91                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0560            | \$6,165,092  | \$10,682,359 | \$4,517,266  | 1.73                  |
| Utility Cost Test (UCT)                                 | \$0.0224            | \$2,460,656  | \$10,682,359 | \$8,221,702  | 4.34                  |
| Rate Impact Test (RIM)                                  |                     | \$10,780,643 | \$10,682,359 | (\$98,285)   | 0.99                  |
| Participant Cost Test (PCT)                             |                     | \$4,969,903  | \$9,585,454  | \$4,615,551  | 1.93                  |
| Discounted Participant Payback<br>(years)               |                     |              |              | 5.05         |                       |

**Table 10: Motors**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0208            | \$115,248 | \$577,075 | \$461,827    | 5.01                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0208            | \$115,248 | \$524,613 | \$409,365    | 4.55                  |
| Utility Cost Test (UCT)                                 | \$0.0141            | \$78,411  | \$524,613 | \$446,202    | 6.69                  |
| Rate Impact Test (RIM)                                  |                     | \$510,346 | \$524,613 | \$14,267     | 1.03                  |
| Participant Cost Test (PCT)                             |                     | \$57,482  | \$452,580 | \$395,098    | 7.87                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 0.94         |                       |

**Table 11: Office**

|   | Levelized<br>\$/kWh | Costs     | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0434            | \$43,644  | \$90,681 | \$47,037     | 2.08                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0434            | \$43,644  | \$82,437 | \$38,793     | 1.89                  |
| Utility Cost Test (UCT)                                 | \$0.0307            | \$30,881  | \$82,437 | \$51,556     | 2.67                  |
| Rate Impact Test (RIM)                                  |                     | \$103,863 | \$82,437 | (\$21,426)   | 0.79                  |
| Participant Cost Test (PCT)                             |                     | \$20,498  | \$80,717 | \$60,220     | 3.94                  |
| Discounted Participant Payback<br>(years)               |                     |           |          | 0.86         |                       |

**Table 12: Compressed Air**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0731            | \$57,879 | \$78,900 | \$21,021     | 1.36                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0731            | \$57,879 | \$71,727 | \$13,848     | 1.24                  |
| Utility Cost Test (UCT)                                 | \$0.0353            | \$27,974 | \$71,727 | \$43,752     | 2.56                  |
| Rate Impact Test (RIM)                                  |                     | \$78,650 | \$71,727 | (\$6,923)    | 0.91                  |
| Participant Cost Test (PCT)                             |                     | \$46,241 | \$67,012 | \$20,771     | 1.45                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | 4.80         |                       |

**Table 13: Farm & Dairy**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.2683            | \$87,748 | \$30,596 | (\$57,152)   | 0.35                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.2683            | \$87,748 | \$27,815 | (\$59,933)   | 0.32                  |
| Utility Cost Test (UCT)                                 | \$0.0262            | \$8,561  | \$27,815 | \$19,254     | 3.25                  |
| Rate Impact Test (RIM)                                  |                     | \$32,022 | \$27,815 | (\$4,207)    | 0.87                  |
| Participant Cost Test (PCT)                             |                     | \$83,325 | \$27,599 | (\$55,726)   | 0.33                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | N/A          |                       |

**Table 14: Irrigation**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.1099            | \$56,724 | \$44,051 | (\$12,674)   | 0.78                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.1099            | \$56,724 | \$40,046 | (\$16,678)   | 0.71                  |
| Utility Cost Test (UCT)                                 | \$0.0400            | \$20,621 | \$40,046 | \$19,425     | 1.94                  |
| Rate Impact Test (RIM)                                  |                     | \$53,564 | \$40,046 | (\$13,518)   | 0.75                  |
| Participant Cost Test (PCT)                             |                     | \$44,733 | \$41,573 | (\$3,160)    | 0.93                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | N/A          |                       |



## Energy FinAnswer

The tables below present the cost-effectiveness findings of the Washington FinAnswer program based on 2012 costs and savings estimates. The utility discount rate is from the 2011 PacifiCorp Integrated Resource Plan.

Cost-effectiveness was tested using the 2011 IRP west system 71% load factor decrement (medium carbon). Table 1 lists modeling inputs.

The program is cost-effective from all perspectives.

**Table 1: Energy FinAnswer Inputs**

| Parameter   | Value    |
|---|----------|
| Discount Rate                                       | 7.17%    |
| Commercial Line Loss                                | 9.53%    |
| Industrial Line Loss                                | 8.16%    |
| Commercial Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0768 |
| Industrial Energy Rate (\$/kWh)<br>(base year 2012) | \$0.0649 |
| Inflation Rate <sup>7</sup>                         | 1.80%    |

**Table 2: Energy FinAnswer  
Annual Program Costs**

|                     | Marketing       | Utility Admin    | Engineering      | Incentives         | Total Utility Costs | Net Participant Incremental Cost |
|---------------------|-----------------|------------------|------------------|--------------------|---------------------|----------------------------------|
| Additional Measures | \$2,568         | \$8,353          | \$30,337         | \$85,603           | \$126,861           | \$177,919                        |
| Building Shell      | \$21            | \$66             | \$315            | \$1,042            | \$1,444             | \$2,653                          |
| Compressed Air      | \$111           | \$354            | \$1,688          | \$3,924            | \$6,078             | \$7,142                          |
| Controls            | \$822           | \$2,677          | \$9,479          | \$19,232           | \$32,209            | \$34,022                         |
| HVAC                | \$7,948         | \$25,569         | \$109,272        | \$315,119          | \$457,908           | \$1,227,085                      |
| Irrigation          | \$573           | \$1,866          | \$6,610          | \$19,030           | \$28,079            | \$67,916                         |
| Lighting            | \$1,588         | \$5,077          | \$23,483         | \$75,006           | \$105,153           | \$380,048                        |
| Motors              | \$3,704         | \$12,061         | \$43,059         | \$97,737           | \$156,561           | \$197,886                        |
| Refrigeration       | \$35,816        | \$116,675        | \$413,786        | \$892,780          | \$1,459,056         | \$1,968,819                      |
| <b>Total</b>        | <b>\$53,149</b> | <b>\$172,698</b> | <b>\$638,028</b> | <b>\$1,509,473</b> | <b>\$2,373,349</b>  | <b>\$4,063,489</b>               |

<sup>7</sup> Used to escalate future year energy rates.

**Table 3: Energy FinAnswer Savings by Measure Type**

|                     | Gross kWh Savings | Realization Rate | Adjusted Gross Savings | Net to Gross Percentage | Net kWh Savings   | Measure Life |
|---------------------|-------------------|------------------|------------------------|-------------------------|-------------------|--------------|
| Additional Measures | 569,034           | 95%              | 538,659                | 100%                    | 538,659           | 14           |
| Building Shell      | 6,704             | 100%             | 6,704                  | 100%                    | 6,704             | 14           |
| Compressed Air      | 35,887            | 100%             | 35,887                 | 100%                    | 35,887            | 14           |
| Controls            | 175,238           | 94%              | 164,724                | 100%                    | 164,724           | 14           |
| HVAC                | 2,222,154         | 98%              | 2,181,804              | 100%                    | 2,181,804         | 14           |
| Irrigation          | 122,197           | 94%              | 114,865                | 100%                    | 114,865           | 14           |
| Lighting            | 493,512           | 100%             | 491,241                | 100%                    | 491,241           | 14           |
| Motors              | 799,774           | 94%              | 753,508                | 100%                    | 753,508           | 14           |
| Refrigeration       | 7,656,354         | 94%              | 7,199,996              | 100%                    | 7,199,996         | 14           |
| <b>Total</b>        | <b>12,080,854</b> |                  | <b>11,487,388</b>      |                         | <b>11,487,388</b> |              |

**Table 4: Energy FinAnswer – All Measures**

|  | Levelized \$/kWh | Costs        | Benefits     | Net Benefits   | Benefit/Cost Ratio |
|--|------------------|--------------|--------------|----------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0426         | \$4,927,365  | \$11,999,776 | \$7,072,411    | 2.44               |
| Total Resource Cost Test (TRC) No Adder              | \$0.0426         | \$4,927,365  | \$10,908,887 | \$5,981,522    | 2.21               |
| Utility Cost Test (UCT)                              | \$0.0205         | \$2,373,349  | \$10,908,887 | \$8,535,538    | 4.60               |
| Rate Impact Test (RIM)                               |                  | \$10,273,274 | \$10,908,887 | \$635,613      | 1.06               |
| Participant Cost Test (PCT)                          |                  | \$4,063,489  | \$9,409,398  | \$5,345,909    | 2.32               |
| Lifecycle Revenue Impacts (\$/kWh)                   |                  |              |              | (\$0.00001270) |                    |
| Discounted Participant Payback (years)               |                  |              |              | 3.53           |                    |

**Table 5: Additional Measures**

|  | Levelized \$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost Ratio |
|--|------------------|-----------|-----------|--------------|--------------------|
| Total Resource Cost Test (PTRC) + Conservation Adder | \$0.0405         | \$219,176 | \$558,474 | \$339,298    | 2.55               |
| Total Resource Cost Test (TRC) No Adder              | \$0.0405         | \$219,176 | \$507,704 | \$288,528    | 2.32               |
| Utility Cost Test (UCT)                              | \$0.0234         | \$126,861 | \$507,704 | \$380,843    | 4.00               |
| Rate Impact Test (RIM)                               |                  | \$492,488 | \$507,704 | \$15,216     | 1.03               |
| Participant Cost Test (PCT)                          |                  | \$177,919 | \$451,230 | \$273,312    | 2.54               |
| Discounted Participant Payback (years)               |                  |           |           | 2.70         |                    |

**Table 6: Building Shell**

|   | Levelized<br>\$/kWh | Costs   | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|---------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0448            | \$3,055 | \$7,273  | \$4,217      | 2.38                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0448            | \$3,055 | \$6,611  | \$3,556      | 2.16                  |
| Utility Cost Test (UCT)                                 | \$0.0212            | \$1,444 | \$6,611  | \$5,167      | 4.58                  |
| Rate Impact Test (RIM)                                  |                     | \$6,717 | \$6,611  | (\$105)      | 0.98                  |
| Participant Cost Test (PCT)                             |                     | \$2,653 | \$6,314  | \$3,661      | 2.38                  |
| Discounted Participant Payback<br>(years)               |                     |         |          | 3.32         |                       |

**Table 7: Compressed Air Table**

|   | Levelized<br>\$/kWh | Costs    | Benefits | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|----------|----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0255            | \$9,296  | \$37,567 | \$28,272     | 4.04                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0255            | \$9,296  | \$34,152 | \$24,857     | 3.67                  |
| Utility Cost Test (UCT)                                 | \$0.0167            | \$6,078  | \$34,152 | \$28,075     | 5.62                  |
| Rate Impact Test (RIM)                                  |                     | \$34,300 | \$34,152 | (\$148)      | 1.00                  |
| Participant Cost Test (PCT)                             |                     | \$7,142  | \$32,147 | \$25,005     | 4.50                  |
| Discounted Participant Payback<br>(years)               |                     |          |          | 1.18         |                       |

**Table 8: Controls Table**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0284            | \$46,999  | \$170,280 | \$123,282    | 3.62                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0284            | \$46,999  | \$154,800 | \$107,802    | 3.29                  |
| Utility Cost Test (UCT)                                 | \$0.0195            | \$32,209  | \$154,800 | \$122,591    | 4.81                  |
| Rate Impact Test (RIM)                                  |                     | \$141,680 | \$154,800 | \$13,121     | 1.09                  |
| Participant Cost Test (PCT)                             |                     | \$34,022  | \$128,703 | \$94,681     | 3.78                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 1.40         |                       |

**Table 9: HVAC**

|   | Levelized<br>\$/kWh | Costs       | Benefits    | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-------------|-------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0620            | \$1,369,874 | \$2,358,294 | \$988,419    | 1.72                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0620            | \$1,369,874 | \$2,143,903 | \$774,029    | 1.57                  |
| Utility Cost Test (UCT)                                 | \$0.0207            | \$457,908   | \$2,143,903 | \$1,685,995  | 4.68                  |
| Rate Impact Test (RIM)                                  |                     | \$2,096,795 | \$2,143,903 | \$47,108     | 1.02                  |
| Participant Cost Test (PCT)                             |                     | \$1,227,085 | \$1,954,006 | \$726,921    | 1.59                  |
| Discounted Participant Payback<br>(years)               |                     |             |             | 6.55         |                       |

**Table 10: Irrigation**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0675            | \$76,965  | \$112,463 | \$35,498     | 1.46                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0675            | \$76,965  | \$102,240 | \$25,274     | 1.33                  |
| Utility Cost Test (UCT)                                 | \$0.0246            | \$28,079  | \$102,240 | \$74,160     | 3.64                  |
| Rate Impact Test (RIM)                                  |                     | \$103,495 | \$102,240 | (\$1,256)    | 0.99                  |
| Participant Cost Test (PCT)                             |                     | \$67,916  | \$94,446  | \$26,530     | 1.39                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 7.75         |                       |

**Table 11: Lighting**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0822            | \$410,195 | \$532,697 | \$122,501    | 1.30                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0822            | \$410,195 | \$484,270 | \$74,074     | 1.18                  |
| Utility Cost Test (UCT)                                 | \$0.0211            | \$105,153 | \$484,270 | \$379,116    | 4.61                  |
| Rate Impact Test (RIM)                                  |                     | \$487,144 | \$484,270 | (\$2,874)    | 0.99                  |
| Participant Cost Test (PCT)                             |                     | \$380,048 | \$456,997 | \$76,949     | 1.20                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 10.26        |                       |

**Table 12: Motors**

|   | Levelized<br>\$/kWh | Costs     | Benefits  | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-----------|-----------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0339            | \$256,709 | \$778,919 | \$522,210    | 3.03                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0339            | \$256,709 | \$708,108 | \$451,399    | 2.76                  |
| Utility Cost Test (UCT)                                 | \$0.0207            | \$156,561 | \$708,108 | \$551,548    | 4.52                  |
| Rate Impact Test (RIM)                                  |                     | \$660,544 | \$708,108 | \$47,564     | 1.07                  |
| Participant Cost Test (PCT)                             |                     | \$197,886 | \$601,720 | \$403,835    | 3.04                  |
| Discounted Participant Payback<br>(years)               |                     |           |           | 2.09         |                       |

**Table 13: Refrigeration**

|   | Levelized<br>\$/kWh | Costs       | Benefits    | Net Benefits | Benefit/Cost<br>Ratio |
|---|---------------------|-------------|-------------|--------------|-----------------------|
| Total Resource Cost Test (PTRC)<br>+ Conservation Adder | \$0.0351            | \$2,535,095 | \$7,443,808 | \$4,908,713  | 2.94                  |
| Total Resource Cost Test (TRC)<br>No Adder              | \$0.0351            | \$2,535,095 | \$6,767,098 | \$4,232,003  | 2.67                  |
| Utility Cost Test (UCT)                                 | \$0.0202            | \$1,459,056 | \$6,767,098 | \$5,308,042  | 4.64                  |
| Rate Impact Test (RIM)                                  |                     | \$6,250,111 | \$6,767,098 | \$516,987    | 1.08                  |
| Participant Cost Test (PCT)                             |                     | \$1,968,819 | \$5,683,835 | \$3,715,016  | 2.89                  |
| Discounted Participant Payback<br>(years)               |                     |             |             | 2.39         |                       |



## Appendix 3

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# Washington Measure Installation Verifications

Pacific Power

# Washington Measure Installation Verifications

## Low Income Weatherization

All projects

- All measures are qualified through US Department of Energy approved audit tool or priority list.
- 100 percent inspection by agency inspector of all homes treated, reconciling work completed and quality (corrective action includes measure verification) prior to invoicing Company.
- State inspector follows with random inspections.
- Company hires independent inspector to inspect between 5-10 percent of homes treated (post treatment and payment).

## Home Energy Savings

Site inspections by Program Administrator staff for the following retrofit measures ( $\geq 5$  percent)

- Insulation
- Windows
- Central air conditioner / heat pump tune-ups
- Duct Sealing

Site inspections of 100 percent by Program Administrator staff of all contractor installed measures in new homes such as insulation, windows, heating and cooling system installs or sizing, duct sealing and CFLs.

No site inspections are conducted for the following measures (unless part of new homes inspection process). However all post-purchase incented measures undergo a quality assurance review prior to the issuance of the customer/dealer incentive and recording of savings (i.e. proof of purchase receipt review) and eligible equipment review. Additionally, customer account and customer address are checked to ensure the Company does not double pay for the same measure or double count measure savings.

- Refrigerators
- Dishwasher
- Ceiling fans
- Light fixtures
- Clothes washers
- Water heaters
- Evaporative coolers
- Air conditioners

Other measures

- CFLs – retail channel, manufacturer agreements and program administrator sales record reviews of qualifying equipment. Invoicing and retail pricing is administered by program administrator.

## Refrigerator Recycling

Company hires an independent inspector to phone survey  $\geq 5$  percent program participants and to site inspect  $\geq 10$  percent of program participants in order to verifying program participation, eligibility of equipment, that vendor pick-up procedures are followed (equipment is disabled at site, kits distributed, etc.) and to survey customer experience.

## **FinAnswer Express**

### For trade ally program administrated projects

#### Lighting projects

- Retrofits - 100 percent pre- and post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount. Project cost documentation reviewed for all projects.
- New construction - 100 percent post-installation site inspections by third party consultant of all projects with incentives over a specified dollar amount.
- A percent of post-installation site inspections by program administrator of projects with incentives under a specified dollar amount.

#### Non-lighting projects

- 100 percent of applications with an incentive that exceeds a specified dollar amount will be inspected (via site inspection) by program administrator.
- A minimum of a specified percent of remaining non-lighting applications will be inspected, either in person or via telephone interview, by program administrator.

### For Company project manager delivered projects (lighting and non-lighting)

#### Lighting and non-lighting

- 100 percent pre/post-installation site inspections by third party consulting engineering firms, invoice reconciled to inspection results.

## **Energy FinAnswer**

#### All projects

- 100 percent pre and/or post-site inspections by third party engineering consultant, inspection is reconciled with project invoice for energy efficiency retrofit measures provided by customers. No pre-inspection for new construction.
- Most projects have a commissioning requirement.

## **All Programs**

As part of the third-party program evaluations (two-year cycle) process, the Company is implementing semi-annual customer surveys to collect evaluation-relevant data more frequently to cure for memory loss and other detractors such as customers moving and data not be readily available at evaluation time). This will serve as a further check verifying customer participation and measures installed.

Additional record reviews and site inspections (including metering/data logging) is conducted as part of the process and impact evaluations, a final verification of measure installations.





Appendix 4

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Washington Program Evaluations

Pacific Power

## Washington 2012 Evaluations

### Program Evaluation Recommendations and Company Responses

Evaluation reports provide detailed information on the process and impact evaluations performed on each program, summarizing the methodology used to calculate the evaluated savings as well as providing recommendations for the Company to consider for improving the process or impact of the program, as well as customer satisfaction.

Outlined below is a list of the programs, the years that were evaluated during 2012 and the third party evaluator who completed the evaluation. Program evaluations are available for review at [www.pacificorp.com/es/dsm/washington.html](http://www.pacificorp.com/es/dsm/washington.html)

| <b>Program</b>             | <b>Years Evaluated</b>    | <b>Evaluator</b>          |
|----------------------------|---------------------------|---------------------------|
| Home Energy Savings        | 2009-2010                 | The Cadmus Group          |
| See ya later, refrigerator | 2009-2010                 | The Cadmus Group          |
| Low- Income Weatherization | March 2009- February 2011 | The Cadmus Group          |
| Energy FinAnswer           | 2009-2011                 | Navigant Consulting, Inc. |
| FinAnswer Express          | 2009-2011                 | Navigant Consulting, Inc. |

Company responses to the program recommendations contained in the 2009 – 2011 evaluations are provided below.

The third party evaluator’s recommendations and Company’s responses are provided in Table 1:

**Table 1**  
**Home Energy Savings Evaluation Recommendations**

| <b>Evaluation Recommendations</b>   | <b>Pacific Power Action Plan</b>  |
|---|---|
| Due to lack of preparation by retailers, Pacific Power should consider providing educational point of purchase materials about EISA to lighting retailers, framed in the context of increased availability of utility-supported, high-efficiency lighting options. This will help retailers prepare customers for the changes in lighting availability and decrease customer frustration. | The Company developed an EISA communications plan in June 2011. Materials and messaging on EISA are already integrated into the program’s marketing plans. Messaging doesn’t focus on the specifics of EISA but rather on educating consumers on the meaning and difference for lumens and watts. |

| <b>Evaluation Recommendations</b>   | <b>Pacific Power Action Plan</b>   |
|---|--|
| <p>Ensure that lighting retailers are trained to properly educate and prepare customers for the EISA changes, specifically the Lighting Facts label that is required to be displayed on all lighting packages. Supply retailers with point of purchase materials that will show customers how to interpret the label and easily find the Pacific Power-incented bulbs they need. Although this would not produce directly measureable savings impacts, increased customer satisfaction could indirectly increase customers' willingness to participate in other components of the HES Program.</p>  | <p>The Company developed an EISA communications plan in June 2011. Materials and messaging on EISA are already integrated into the program's marketing plans. Messaging doesn't focus on the specifics of EISA but rather on educating consumers on the meaning and difference for lumens and watts.</p> |
| <p>Given the changes in the evolving lighting industry, explore which higher efficiency lighting options (e.g. LEDs) will garner the most saving per unit. Align marketing messages with the preferred lighting option to heighten awareness using market transformation tactics.</p>   | <p>LED downlights were added to the program in April 2012.</p>   |
| <p>The evolving lighting market can act as a platform to clarify marketing messages about lighting options and which bulbs will be best for each customer's intended use. Create marketing collateral that compares the prices of various lighting options with the expected lifetime savings associated with that option to demonstrate the long term value of higher efficiency options. The potential long-term savings attributed to qualifying measures was the primary purchasing motivator for appliance and weatherization participants. These same marketing tactics should be considered for the lighting market given the elimination of traditional, inexpensive options. Messaging should also highlight comparisons of lighting quality and other factors consumers tend to focus on in satisfaction surveys.</p> | <p>Point-of-purchase marketing materials for lighting emphasize educating customers on how to choose the right light bulb for the right application with information on color rendering, lumens and related information.</p>   |
| <p>EISA informational materials should highlight the increased variety of discounted lighting</p>   | <p>See above responses.</p>  |

| Evaluation Recommendations   | Pacific Power Action Plan   |
|--|---|
| options offered by Pacific Power’s HES Program, including specialty CFLs and LEDs.   |   |
| Consider providing recycling centers at all participating retail locations; so customers can simply bring in spent bulbs when purchasing replacements. Recycling centers could convey a positive public image to enhance Pacific Power’s reputation within the community and add public relations value to the Program, particularly with interveners. Pacific Power should raise awareness of the availability of recycling centers through bill inserts, training for retail staff and other outreach tactics. | 10 lighting displays incorporating prepaid recycling boxes were distributed to small retailers in mid to late 2011 throughout Pacific Power and Rocky Mountain Power service territory. It was very difficult to get retailers to accept the displays and set them up on the sales floor. The effort yield no noticeably increase in savings and didn’t generate any additional benefits for the retailers. The effort has been discontinued. |
| As the baseline for lighting savings changes, the non-lighting savings garnered from the HES Program may have an increased significance. If needed, continue to recruit new trade allies to broaden program awareness throughout the service territory. The HES program’s trade ally presence is effective; an increased trade ally network could lead to heightened incentive awareness and increased program participation.  | The Company constantly is recruiting new trade allies, as well focusing on retaining current trade allies.  |
| Provide trade ally-focused marketing collateral for download within the trade ally section of the program’s Website. If necessary, these materials can be offered within a password-protected area. If possible, marketing materials should offer personalization and/or co-branding options for trade ally promotion.   | The Company continues to use a face-to-face, telephone, email and webinar contract strategies for engaging trade allies for all activities. The volume of trade ally materials does not warrant developing a Web-based ordering system.   |
| Ensure lighting retailers are trained to inform customers that incented lighting products are discounted by Pacific Power.   | Lighting retailers receiving visits and training from program staff on a regular basis to ensure they inform customers the discounted lighting products are provided by Pacific Power.  |
| Continue to leverage “one-to-many” opportunities. “Road Shows” and event exposure can reach rural customers cost-effectively. Invitations to road shows, community gatherings, and/or event sponsorships can offer effective marketing opportunities, outlining the program’s value proposition. Events targeting trade allies, a  | The Company continues to seek out event opportunities to support trade allies and motivate potential participants.  |

| Evaluation Recommendations   | Pacific Power Action Plan   |
|--|---|
| highly qualified and motivated audience base, can be particularly effective.   |   |
| Track metrics and provide results to evaluators. Metrics will help Pacific Power assess its return-on-marketing investment, and fine-tune marketing resource allocation.   | The Company does track web analytics closely. The Company tracks effectiveness of events, direct mail, bill inserts and other outbound communications. The Company will continue to expand its use of marketing metrics to measure effectiveness and to fine-tune campaigns.  |
| Leverage on- and offline social networks. Social network distribution could be provided online and in person. These groups (such as stakeholder trade associations, community networks, Chambers of Commerce, LinkedIn groups, and e-mail networks) provide low-cost, high-volume information distribution vehicles.   | The Company has expanded the use of social media (i.e. Twitter, Facebook, etc.) for promoting programs. Program staff is not engaged in local professional associations but relies on Company staff such customer and community managers to represent the program with local organizations.   |
| Promote the program's URL. Only 5 percent of appliance and weatherization participants and no trade allies cited the Website as a referral source, and trade allies did not mentioned online information when asked how they learned about the program. Online marketing can be one of the most cost-effective tools to generate interest and leads in remote geographies. In marketing materials, Pacific Power should emphasize its Website as a key tool for obtaining detailed program information. However, marketing channels should continue to focus on the approaches reported most effective with customers: bill inserts and in-store displays. | Company marketing strategy has shifted from promoting specific energy efficiency program websites to promoting the overarching marketing brand of wattsmart. Nearly all program marketing materials include the wattsmart.com address instead of the program specific address. The Company continues to maintain its focus on bill inserts and in-store displays as the most effective marketing channels with customers. |
| Mirror segment-driven messages from program collateral on the Website.   | Marketing and messaging across channels is consistent.  |
| Include Spanish language information on the Website.   | Company has developed several Spanish incentive applications and is in the process of revamping its approach to the Spanish speaking community.   |
| Outsource the QC process to a locally-based QC firm. Subcontracting with a locally-based firm with viable outside work would decrease travel costs and eliminate the concern of a full-time staff member having idle time between  | Quality control inspections for HVAC and weatherization projects are done by program staff.   |

| Evaluation Recommendations  | Pacific Power Action Plan  |
|---|--|
| installation inspections.   |  |
| Utilize marketing messages that target the equipment replacement market. Trade allies should be trained to capture this market's interest by promoting the HES Program when contacted to install new equipment in emergency replacement situations.   | Program marketing, messaging and branding uses a consistent look and feel.   |
| Leverage customer's interest in saving energy by providing trade allies with materials focused on potential energy cost savings associated with qualified measures. Information could include estimated annual and lifetime cost savings, compared to a standard efficiency model under accurate Pacific Power rates. | The Company has rolled out a more formal communication and relationship strategy with trade allies. Webinars, a home improvement pocket guide, frequent communications and site visits, inspection feedback, trade ally newsletters, contractor briefs and other tools are being used to provide more value to trade allies and to engage them more thoroughly and consistently. |

Table 2  
See, ya later refrigerator Evaluation Recommendations

| Evaluation Recommendations  | Pacific Power Action Plan   |
|---|---|
| Pacific Power should continue implementing the SYLR program to achieve cost-effective energy savings.   | The Company continues to offer the program.   |
| Pacific Power should adjust its expected per-unit savings to reflect estimates calculated in this evaluation. Cadmus recommends tracking program savings using the evaluated per-unit gross savings values of 1,153 kWh for refrigerators and 935 kWh for freezers.   | The Company adjusted kWh savings using the RTF methodology.   |
| Although Pacific Power did not apply a Waste Heat Factor (WHF) adjustment to CFL savings estimates, the WHF should be applied to all future planning and evaluated CFL savings values. Cadmus recommends tracking program savings from energy-saving kits using the WHF-adjusted gross savings value of 70 kWh. | The Company adjusted kWh savings for CFL savings by applying a WHF, lower hours of use per day and revised storage factors. |
| Per-unit savings can be greatly affected by changes in appliance characteristics, such as configuration, age, and size. The program administrator tracks these characteristics, and   | The Company now requires an annual summary of average participant unit characteristics.                                     |

| <b>Evaluation Recommendations</b>  | <b>Pacific Power Action Plan</b>   |
|--|--|
| Pacific Power should closely monitor changes in participating units' characteristics. This could be achieved by summarizing participation data on an annual basis, and noting changes in average participant unit characteristics.   |  |
| The program administrator and Pacific Power should continue with plans to improve reporting processes to eliminate the possibility of reporting discrepancies and increase accuracy of reported results. Cadmus identified minor discrepancies in reported number of participant units, and Pacific Power has since worked with the program administrator to prevent discrepancies between program administrator reporting and Pacific Power reporting by including additional documentation in monthly reports. | The Company has improved monthly reporting and invoicing to eliminate reporting errors and improve accuracy. Monthly invoices, monthly reports and data from the vendor are all compared each month for accuracy against each other. |

Table 3  
Low Income Evaluation Recommendations

| <b>Evaluation Recommendations</b>   | <b>Pacific Power Action Plan</b>  |
|---|---|
| Cadmus recommends Pacific Power use the average evaluated net savings of 1,476 kWh per participating home as a basis for future planning. This represents approximately a 7% net reduction in consumption, well within the range of other evaluations, as noted in the report's body.   | The company will continue to report 1,840 kWh per home through the end of the current biennial period, December 31, 2013. DSM Planning staff is investigating whether to adjust per home savings for planning and reporting or to convert to a kWh savings per installed measure methodology in the 2014-2015 biennial period.  |
| The evaluation found program net savings of 7% of pre-program consumption compared to 12% in the previous program evaluation (2003–2005). This was largely due to nonparticipants' usage decreasing during the same period. An option to help mitigate declining program savings would be to work with stakeholders to develop an efficient targeting pilot program for weatherizing high-use customers (i.e., low-efficiency customers burdened with above-average usage levels, | A list of customers participating in the bill discount program (Schedule 17) was developed for each of the three agency service areas, and was offered to the agencies. These customers are income eligible for weatherization services. The lists include the annual and winter kWh usage for each household so it can be used by the agencies to help prioritize customers with high usage. |

| Evaluation Recommendations   | Pacific Power Action Plan   |
|--|---|
| <p>while controlling for other factors, such as household size or square footage. This approach is consistent with how to prioritize weatherization services outlined in the Weatherization Manual for Managing the Low-Income Weatherization Program.</p>   |   |
| <p>Agencies communicated that approximately 30-66% of all homes they serve result in walk-aways. One agency reported that up to 80% of these walk-aways are due to insufficient funding mechanisms for health and safety or other repairs. Furthermore, one agency reported that if they had extra flexibility in using Pacific Power funds, such as receiving up to 20% of total rebates claimed for repairs or health and safety upgrades, they could go after homes with marginally higher repair costs, but are good candidates for energy efficiency upgrades. Cadmus recommends Pacific Power investigate increasing the percent of funding allowable for health and safety or other repairs to understand how such a change would impact program participation, energy savings, and overall program cost-effectiveness.</p> | <p>The Program Manager conferred with agencies about increasing health, safety and repair funding beyond 15%. They have other sources of funds for these measures and only one agency, serving less than 20% of the completed homes, has reached the current 15% limit. The other two agency health, safety and repair billings to Pacific Power are for considerably less than 15% and they did not indicate a need to revise the funding, so at this time an adjustment is not warranted.</p> |

Table 4  
Energy FinAnswer Evaluation Recommendations

| Evaluation Recommendations  | Pacific Power Action Plan  |
|---|--|
| <p><b>Include energy and demand savings calculations in a spreadsheet format.</b> By providing this information in one consolidated location, future evaluation efforts will be more efficient and reduce the potential for comparing verified savings to incorrect or outdated project assumptions.</p> <ul style="list-style-type: none"> <li>» Although each project properly documented the reported energy and demand savings estimates, the absence of savings calculations (particularly for demand savings) reduces the transparency of reported</li> </ul> | <p>Company will update report templates to capture key elements of the evaluation findings pending a cost to benefit evaluation of the recommendation. Customers have indicated a high degree of satisfaction with the content and format of company issued Final Inspection reports concerning customer implemented projects. Company provides consulting engineers a report template standard that will be review annually confirming ongoing adherence and evaluation of potential enhancement to meet customer identified needs.</p> |



| Evaluation Recommendations  | Pacific Power Action Plan |
|---|---------------------------|
| <p>savings, along with the efficiency of evaluation efforts. Providing both the input assumptions and savings calculation methodologies will ensure the comparability and accuracy of reported and evaluated savings and will reduce associated evaluation costs.</p> <p>» Include the clearly identified final Energy Savings table in project files for the evaluation. The data should include both baseline and current energy and demand usage as well as savings estimates. Utilizing consistent formats based on the FINAL numbers is important for all follow up activities, and will provide decision makers the key information needed to quickly assess the situation and take appropriate action relative to the inspections conducted. It is noted that the key elements are included in the documentation for each project, but it is often difficult to identify the final set of parameters used because the project files capture multiple changes/revisions to the application process.</p> |                           |

Table 5  
FinAnswer Express Evaluation Recommendations

| Evaluation Recommendations   | Pacific Power Action Plan |
|--|---------------------------|
| <p><b>Modify reported operating hours in project files to specify lighting hours, effects of seasonality, and specific holidays. This will help clarify the analysis process and result in better estimates of actual savings.</b> The current FinAnswer Express application is one of the better designed applications that the Evaluation Team has observed. It collects</p> |                           |

| Evaluation Recommendations  | Pacific Power Action Plan   |
|---|---|
| <p>essential information in a simple and concise manner. In Washington, the evaluation team observed that approximately 26% of the sites sampled had seasonal variation in operating hours; this is indicative of the nature of the customers in PacifiCorp’s Washington service territory. These customers include food and fruit processing, which have heavy seasonal variation in operating hours. The following modifications would clarify the analysis process and create less variation in realization rates, and better overall savings estimates in future program cycles:</p> <ul style="list-style-type: none"> <li>• When listing the hours of operation, Pacific Power should reflect changes in operating hours due to <u>seasonality</u>. For example, a fruit production company might run on one schedule for most of the year, except for 4 months during peak season when all lights are on. This seasonality adjustment allows for a more accurate characterization of annual operating hours. This is particularly important for fruit and food processing sites that are prevalent in Washington.</li> <li>• <u>Operation schedules</u> should reflect lighting schedules for specific parts of the building, by lighting group. The hours of operation should specifically reflect the hours that lights are on in a certain schedule group since business hours don’t always reflect lighting hours. For example, if the front office is occupied 9 hours a day M-F, Pacific Power should ask the customer whether the lights are also on for 9 hours a day. Sometimes asking that clarification question will result in drastically different annual operating hours for an area.</li> <li>• Instead of asking whether the business is open for <u>major holidays</u> as a yes/no question and the number of total</li> </ul> | <p>For lighting projects where the hours of operation vary by season, seasonality is currently accounted for in the hours of operation entered in the lighting tool for a project. Notes in the project file show how the operating hours were determined.</p> <p>To improve the documentation, Pacific Power is exploring options for modifying the tool and/or processes to improve documentation to reflect seasonality for hours of operation for lighting.</p> <p>The lighting tool allows the user to enter up to 5 different operating schedules per project. If additional schedules are needed, additional tools can be used. The tool has a schedule “X” that is available to select for 24 hour operations that run 8,760 hours per year. Users enter fixtures by area, grouping like fixtures with the same operating schedule together and designate which of the schedules applies for that area. The hours of operation represent the best estimate for the hours the lighting is on for that area, regardless of the stated hours of the business.</p> <p>Pacific Power will consider asking customers the specific holidays (e.g. by date) that lights</p> |

| <b>Evaluation Recommendations</b>  | <b>Pacific Power Action Plan</b>  |
|--|---|
| <p>holidays in a year, Pacific Power should consider asking customers the specific days that lights are not operational. For example, a warehouse could have five annual holidays. However, the lights may still be on the same working schedule during those five days. In addition, if some of those five days fall during the peak operating season, overall savings estimates could be altered, especially in cases of warehouses and fruit processing plants in Washington.</p> | <p>are not operational and incorporating that into the lighting tool. Given the limited potential for improving the savings estimates, it is unlikely this recommendation will be implemented. However, the lighting tool has been revised to capture the specific number of holidays for each project.</p> |



## Appendix 5

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### FinAnswer Express Trade Ally's

Pacific Power

The following is a list of contractors, distributors and other businesses participating in Pacific Power's Energy Efficiency Alliance displayed in random order (unless sorted by the user) based on the search criteria selected. This listing is provided solely as a convenience to our customers. Pacific Power does not warrant or guarantee the work performed by these participating vendors. You are solely responsible for any contract with a participating vendor and the performance of any vendor you have chosen.

An asterisk (\*) indicates Pacific Power Outstanding Contribution Award winning trade allies in 2006, 2007, 2008, 2009, 2010, 2011 and/or 2012

### Search Criteria:

**Selected State(s):** Washington  
**Specialties:** Lighting  
 HVAC - unitary  
 HVAC - evaporative  
 Motors and VFDs  
 Controls  
 Building envelope  
 Appliances  
 Office equipment  
 Food Service  
 Compressed Air  
 Farm and Dairy  
 Irrigation  
 Other  
**Business Type:** --ANY--

### Search Results: 87 - Date and Time: 03/18/2013 05:31:57 PM

| Company Name   | Specialties   | Business Type               | Join Date  | Projects Completed |
|--|---|-----------------------------|------------|--------------------|
| <b>DeLaval Direct Distribution</b><br>Sunnyside, WA<br>Phone: 509-837-7254   | Motors and VFDs   | Distributor<br>Other: Other | 06/01/2004 | Completed          |
| <b>Telkonet Inc</b><br>10200 Innovation Dr Suite 300<br>Milwaukee, WI<br>Phone: 480-652-6814<br>Website: telkonet.com              | HVAC - unitary  | Distributor                 | 08/01/2008 | Completed          |
| <b>Davis Pumps</b><br>PO Box 566<br>Sunnyside, WA<br>Phone: 509-837-5303   | Motors and VFDs   | Contractor                  | 03/01/2006 | Completed          |
| <b>Dykman Electrical, Inc. - Portland, OR</b><br>3030 NW 29th Ave<br>Portland, OR<br>Phone: 503-223-2992                           | Motors and VFDs   | Distributor                 | 07/01/2004 | Completed          |
| <b>Total Energy Management</b><br>1975 Butler Loop<br>Richland, WA<br>Phone: 509-946-4500  | HVAC - unitary  | Contractor                  | 08/01/2004 | Completed<br>2     |
| <b>Excel Dairy Service</b><br>4100 Outlook Rd.<br>Sunnyside, WA<br>Phone: 509-643-1773   | Farm and Dairy<br>Lighting<br>Other: Other Specialty                    | Contractor                  | 06/18/2009 | Completed          |
| <b>Meier Architecture &amp; Engineering</b><br>8697 W. Gage Blvd.<br>Kennewick, WA<br>Phone: 509-735-1589<br>Website: meierinc.com | HVAC - unitary<br>Lighting<br>Motors and VFDs<br>Other: Other Specialty | Architect                   | 02/01/2012 | Completed          |
| <b>Apollo Sheet Metal</b><br>1207 W. Columbia Dr.<br>Kennewick, WA<br>Phone: 509-586-1104<br>Website: apolloism.com                | HVAC - unitary<br>Motors and VFDs                                       | Distributor                 | 04/01/2006 | Completed<br>13    |

|  |   |   |  |   |
|--|---|---|--|---|
| <p><b>Walla Walla Electric*</b><br/>1225 W. Poplar<br/>Walla Walla, WA<br/>Phone: 509-525-8672<br/>Website: wwelectric.com</p>                       | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>04/09/2001</p> | <p><b>Projects Completed</b><br/>85</p> |
| <p><b>Greenwalt Electric LLC</b><br/>191 Mini Pines Road<br/>Yakima, WA<br/>Phone: 509-966-7083</p>  | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>                                  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>10/28/2008</p> | <p><b>Projects Completed</b><br/>9</p>  |
| <p><b>Mantey Heating &amp; Air</b><br/>3703 W. Nobhill Blvd.<br/>Yakima, WA<br/>Phone: 509-966-5520</p>  | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>                            | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>10/01/2005</p> | <p><b>Projects Completed</b><br/>7</p>  |
| <p><b>Kinter Electric*</b><br/>2761 E. Edison Rd.<br/>PO Box 1058,<br/>Sunnyside, WA<br/>Phone: 509-839-3900<br/>Website: www.kinterelectric.com</p> | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>10/31/2009</p> | <p><b>Projects Completed</b><br/>44</p> |
| <p><b>Stusser Electric Company</b><br/>116 N. 2nd Ave.<br/>Yakima, WA<br/>Phone: 509-453-0378</p>  | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p>               | <p><b>Business Type</b><br/>Distributor</p>       | <p><b>Join Date</b><br/>04/28/2007</p> | <p><b>Projects Completed</b><br/>7</p>  |
| <p><b>Roberts Electrical Inc.</b><br/>13761 US Highway 12<br/>Naches, WA<br/>Phone: 509-930-3803</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p>               | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>05/01/2012</p> | <p><b>Projects Completed</b><br/>2</p>  |
| <p><b>Hoydar-Buck Inc.</b><br/>210 West Orchard Ave<br/>Selah, WA<br/>Phone: 509-697-8800</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>09/28/2009</p> | <p><b>Projects Completed</b><br/>2</p>  |
| <p><b>Linden Electric, Inc.</b><br/>9401 Mieras Rd<br/>Yakima, WA<br/>Phone: 509-575-1191</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>07/06/2006</p> | <p><b>Projects Completed</b><br/>6</p>  |
| <p><b>Ameresco Inc</b><br/>639 Isbell Rd. Suite 360<br/>Reno, NV<br/>Phone: 508-598-4506<br/>Website: ameresco.com</p>                               | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs<br/>Other: Other Specialty</p> | <p><b>Business Type</b><br/>Other: Other</p>      | <p><b>Join Date</b><br/>05/01/2009</p> | <p><b>Projects Completed</b><br/>7</p>  |
| <p><b>ecomodus</b><br/>3821 East 58th Lane<br/>Spokane, WA<br/>Phone: 509-307-4363</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>02/01/2012</p> | <p><b>Projects Completed</b><br/>26</p> |
| <p><b>FGI, llc</b><br/>932 W. 32nd Avenue<br/>Spokane, WA<br/>Phone: 800-630-7345<br/>Website: www.fgillumination.com</p>                            | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Other: Consultant</p> | <p><b>Join Date</b><br/>03/12/2013</p> | <p><b>Projects Completed</b><br/>1</p>  |
| <p><b>Central Chain &amp; Transmission</b><br/>702 S. 2nd Street<br/>Yakima, WA<br/>Phone: 509-457-6188</p>  | <p><b>Specialties</b><br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Distributor</p>       | <p><b>Join Date</b><br/>12/01/2004</p> | <p><b>Projects Completed</b><br/>1</p>  |
| <p><b>Dilbeck Electric, Inc.*</b><br/>517 S. 2nd Avenue<br/>Yakima, WA<br/>Phone: 509-575-4666</p>   | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>                                  | <p><b>Business Type</b><br/>Contractor</p>        | <p><b>Join Date</b><br/>06/01/2005</p> | <p><b>Projects Completed</b><br/>6</p>  |

|  |  |   |  |   |
|--|--|---|--|---|
| <p><b>Platt Electric Supply - Walla Walla</b></p> <p>415 West Main<br/>Walla Walla, WA<br/>Phone: 509-522-0611<br/>Website: platt.com</p>                | <p><b>Specialties</b><br/>Lighting</p>   | <p><b>Business Type</b><br/>Distributor</p> | <p><b>Join Date</b><br/>04/07/2007</p> | <p><b>Projects Completed</b><br/>18</p>   |
| <p><b>Applied Industrial Technologies - Spokane</b></p> <p>301 N. Fancher Rd.<br/>Spokane, WA<br/>Phone: 509-535-2955<br/>Website: www.applied.com</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>  | <p><b>Business Type</b><br/>Distributor</p> | <p><b>Join Date</b><br/>10/01/2004</p> | <p><b>Projects Completed</b></p>          |
| <p><b>Extra Effort Consulting &amp; Supply</b></p> <p>14530 SW 144th Ave.<br/>Tigard, OR<br/>Phone: 503-780-2359<br/>Website: www.ExtraEffortLLC.com</p> | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>                                 | <p><b>Business Type</b><br/>Distributor</p> | <p><b>Join Date</b><br/>04/01/2012</p> | <p><b>Projects Completed</b></p>          |
| <p><b>Eastside Electric</b></p> <p>Spokane, WA<br/>Phone: 509-922-2112<br/>Website: www.eastsideelectric.com</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>  | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>11/01/2004</p> | <p><b>Projects Completed</b></p>          |
| <p><b>Norstar Electric</b></p> <p>11780 Mieras Rd.<br/>Yakima, WA<br/>Phone: 509-961-8161</p>  | <p><b>Specialties</b><br/>Lighting</p>   | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>01/01/2006</p> | <p><b>Projects Completed</b><br/>5</p>    |
| <p><b>North Coast Electric - Pasco</b></p> <p>1928 West A Street<br/>Pasco, WA<br/>Phone: 509-547-9514<br/>Website: www.northcoastelectric.com</p>       | <p><b>Specialties</b><br/>Lighting</p>   | <p><b>Business Type</b><br/>Distributor</p> | <p><b>Join Date</b><br/>09/21/2012</p> | <p><b>Projects Completed</b><br/>null</p> |
| <p><b>Grassi Refrigeration</b></p> <p>1445 W. Rose<br/>Walla Walla, WA<br/>Phone: 509-529-9700</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>                           | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>06/01/2006</p> | <p><b>Projects Completed</b></p>          |
| <p><b>Pro Controls Inc.</b></p> <p>1312 Gordon Rd<br/>Yakima, WA<br/>Phone: 509-388-4186<br/>Website: procontrolsyakima.com</p>                          | <p><b>Specialties</b><br/>Controls<br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p> | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>07/01/2012</p> | <p><b>Projects Completed</b></p>          |
| <p><b>MH Electric Inc.*</b></p> <p>2607 Pleasant Avenue<br/>Yakima, WA<br/>Phone: 509-952-4464</p>   | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>                                 | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>01/06/2010</p> | <p><b>Projects Completed</b><br/>69</p>   |
| <p><b>Columbia Electric Supply</b></p> <p>932 N 13TH AVE<br/>Walla Walla, WA<br/>Phone: 509-522-1419</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p>              | <p><b>Business Type</b><br/>Distributor</p> | <p><b>Join Date</b><br/>01/01/2008</p> | <p><b>Projects Completed</b><br/>2</p>    |
| <p><b>Electrical Frontier Inc.</b></p> <p>4240 Thorp Road<br/>Moxee, WA<br/>Phone: 509-945-5703</p>  | <p><b>Specialties</b><br/>Lighting</p>   | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>07/01/2012</p> | <p><b>Projects Completed</b><br/>1</p>    |
| <p><b>Beckstead Electric Inc</b></p> <p>92 9th Street<br/>Wenatchee, WA<br/>Phone: 509-663-1148</p>  | <p><b>Specialties</b><br/>Motors and VFDs</p>  | <p><b>Business Type</b><br/>Contractor</p>  | <p><b>Join Date</b><br/>03/01/2008</p> | <p><b>Projects Completed</b></p>          |

|   |   |  |  |  |
|---|---|--|--|--|
| <p><b>Doyle Electric Inc.</b><br/>1421 Dell Avenue<br/>Walla Walla, WA<br/>Phone: 509-529-2500<br/>Website: doyleelectric.com</p>                             | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>10/15/2006</p> | <p><b>Projects Completed</b><br/>7</p>         |
| <p><b>Platt Electric Supply - Yakima</b><br/>16 S. 1st Avenue<br/>Yakima, WA<br/>Phone: 509-452-6444<br/>Website: platt.com</p>                               | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Distributor</p>                        | <p><b>Join Date</b><br/>08/16/2006</p> | <p><b>Projects Completed</b><br/>8</p>         |
| <p><b>Thermex Valley Heating &amp; AC</b><br/>1916 Fruitvale Blvd.<br/>Yakima, WA<br/>Phone: 509-965-0630<br/>Website: thermexvalley.com</p>                  | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>                      | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>07/01/2004</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Ziegler Electric*</b><br/>202 Country Crest Rd<br/>Yakima, WA<br/>Phone: 509-930-3300</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>04/01/2001</p> | <p><b>Projects Completed</b><br/>57</p>        |
| <p><b>Real Green LED</b><br/>4280 W. 200 N.<br/>Cedar City, UT<br/>Phone: 951-235-0382<br/>Website: www.realgreen.net</p>                                     | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Distributor</p>                        | <p><b>Join Date</b><br/>08/01/2011</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Tanko Lighting</b><br/>903 Palou Ave.<br/>San Francisco, CA<br/>Phone: 415-407-5608</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Other: Energy<br/>Services Company</p> | <p><b>Join Date</b><br/>09/21/2012</p> | <p><b>Projects Completed</b><br/>null</p>      |
| <p><b>Lake Shore Electric, Inc.*</b><br/>9702 Tieton Dr.<br/>Yakima, WA<br/>Phone: 509-965-4281</p>   | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs<br/>Other: Other Specialty</p> | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>05/12/2009</p> | <p><b>Projects Completed</b><br/>6</p>         |
| <p><b>Envirofficiency, Inc.</b><br/>270 Summers Circle<br/>Walla Walla, WA<br/>Phone: 509-540-0094<br/>Website: envirofficiencyinc.com</p>                    | <p><b>Specialties</b><br/>Lighting<br/>Other: Other Specialty</p>                     | <p><b>Business Type</b><br/>Distributor</p>                        | <p><b>Join Date</b><br/>11/03/2011</p> | <p><b>Projects Completed</b><br/>1</p>         |
| <p><b>Hendon Electric</b><br/>82075 Hwy 395 N<br/>Umatilla, OR<br/>Phone: 541-922-3844</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>03/01/2005</p> | <p><b>Projects Completed</b><br/>5</p>         |
| <p><b>Energy Industries</b><br/>10220 N Nevada, STE 60<br/>Spokane, WA<br/>Phone: 208-859-6713<br/>Website: energy-industries.com</p>                         | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>10/03/2003</p> | <p><b>Projects Completed</b><br/>7</p>         |
| <p><b>Kapco LLC / Parsons Electric</b><br/>Yakima, WA<br/>Phone: 509-930-1292</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>07/01/2007</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Dykman Electrical, Inc. - Kennewick</b><br/>425 N. Columbia Center Blvd #N104<br/>Kennewick, WA<br/>Phone: 509-781-0525<br/>Website: www.dykman.com</p> | <p><b>Specialties</b><br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Distributor</p>                        | <p><b>Join Date</b><br/>11/01/2006</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Central Mechanical Services</b><br/>619 W. J St.<br/>Yakima, WA<br/>Phone: 509-248-5944</p>   | <p><b>Specialties</b><br/>HVAC - unitary</p>  | <p><b>Business Type</b><br/>Contractor</p>                         | <p><b>Join Date</b><br/>08/01/2004</p> | <p><b>Projects Completed</b><br/>Completed</p> |



|  |   |  |  |  |
|--|---|--|--|--|
| <p><b>PermaCold Engineering, Inc.</b><br/>2945 NW Argyle St<br/>Portland, OR<br/>Phone: 503-249-8190</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>                                 | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>09/01/2005</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>North Coast Electric - Wenatchee</b><br/>1415 N Miller<br/>Wenatchee, WA<br/>Phone: 509-663-8603<br/>Website: www.northcoastelectric.com</p> | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Distributor</p>  | <p><b>Join Date</b><br/>09/21/2012</p> | <p><b>Projects Completed</b><br/>null</p>      |
| <p><b>Picatti Brothers Inc.</b><br/>105 S. 3rd St.<br/>Yakima, WA<br/>Phone: 509-248-2540</p>  | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>                    | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/18/2009</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Nico Electrical Contracting</b><br/>P O. Box 476<br/>Walla Walla, WA<br/>Phone: 509-526-9658</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>09/21/2012</p> | <p><b>Projects Completed</b><br/>2</p>         |
| <p><b>Blue Chip Group Technology, Inc.</b><br/>520 S Bertelsen Rd<br/>Eugene, OR<br/>Phone: 541-343-1300<br/>Website: bcgled.com</p>               | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Other: Other</p> | <p><b>Join Date</b><br/>04/11/2011</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>All-Phase Electric, Inc.</b><br/>2500 S 12th Ave<br/>Union Gap, WA<br/>Phone: 509-454-5093<br/>Website: allphaseelectric.org</p>             | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/08/2006</p> | <p><b>Projects Completed</b><br/>31</p>        |
| <p><b>Micro Computer Systems</b><br/>12631 Beverly Park Road<br/>Lynnwood, WA<br/>Phone: 800-658-1000 x 9889<br/>Website: www.microk12.com</p>     | <p><b>Specialties</b><br/>Office equipment<br/>Other: Other Specialty</p>     | <p><b>Business Type</b><br/>Other: Other</p> | <p><b>Join Date</b><br/>04/01/2012</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Parsons Electric</b><br/>415 Viewmont Pl.<br/>Yakima, WA<br/>Phone: 509-930-1292</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>08/03/2007</p> | <p><b>Projects Completed</b><br/>9</p>         |
| <p><b>Allard Enterprises</b><br/>4506 Maple Ave.<br/>Yakima, WA<br/>Phone: 509-575-0955</p>  | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>              | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>04/01/2006</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Tolman Electric</b><br/>160 Linderman Road<br/>Maben, WA<br/>Phone: 509-830-1164</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p> | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>04/10/2010</p> | <p><b>Projects Completed</b><br/>1</p>         |
| <p><b>A &amp; T Quality Electric LLC</b><br/>4271 N Wenas Rd<br/>Selah, WA<br/>Phone: 509-985-9890</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p> | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>07/15/2009</p> | <p><b>Projects Completed</b><br/>4</p>         |
| <p><b>M. Campbell &amp; Company, Inc.*</b><br/>2828 W Irving St<br/>Pasco, WA<br/>Phone: 509-545-9848<br/>Website: www.callcampbell.com</p>        | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/01/2004</p> | <p><b>Projects Completed</b><br/>1</p>         |
| <p><b>T&amp;M Heating</b><br/>2711 S. 5th Ave<br/>Union Gap, WA<br/>Phone: 509-575-1088</p>  | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>07/01/2004</p> | <p><b>Projects Completed</b><br/>Completed</p> |

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| <p><b>Integrated Controls &amp; Electric Inc</b><br/>3920 S 3750 W<br/>West Haven, UT<br/>Phone: 801-719-0540</p>   | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Distributor</p>  | <p><b>Join Date</b><br/>03/01/2009</p> | <p><b>Projects Completed</b><br/>5</p>  |
| <p><b>CED</b><br/>131 S. 1st Ave.<br/>Yakima, WA<br/>Phone: 509-248-0872</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Distributor</p>  | <p><b>Join Date</b><br/>01/01/2008</p> | <p><b>Projects Completed</b><br/>4</p>  |
| <p><b>Schaefer Refrigeration, Inc.</b><br/>2929 E. Isaacs<br/>Walla Walla, WA<br/>Phone: 509-525-2076</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>              | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/01/2004</p> | <p><b>Projects Completed</b><br/>1</p>  |
| <p><b>Champion Lighting, Inc.</b><br/>4523 S. Saint Andrews Ln<br/>Spokane, WA<br/>Phone: 509-448-4477</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Other: Other</p> | <p><b>Join Date</b><br/>01/20/2007</p> | <p><b>Projects Completed</b><br/>5</p>  |
| <p><b>Freeburg's Supply</b><br/>Sunnyside, WA<br/>Phone: 509-830-2828</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>                                 | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/01/2004</p> | <p><b>Projects Completed</b><br/>5</p>  |
| <p><b>Bailey Electric, Inc.</b><br/>PO Box 10622<br/>Yakima, WA<br/>Phone: 509-452-1128<br/>Website: Baileyelectric.com</p>                                 | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>01/11/2011</p> | <p><b>Projects Completed</b><br/>6</p>  |
| <p><b>K&amp;N Electric Motors, Inc.</b><br/>9933 N.E. Kinder Rd.<br/>Moses Lake, WA<br/>Phone: 509-765-3399<br/>Website: knelectric.com</p>                 | <p><b>Specialties</b><br/>Motors and VFDs</p>                                 | <p><b>Business Type</b><br/>Distributor</p>  | <p><b>Join Date</b><br/>05/01/2004</p> | <p><b>Projects Completed</b><br/>3</p>  |
| <p><b>All Seasons Heating &amp; Air Conditioning*</b><br/>302 S. 3rd Ave.<br/>Yakima, WA<br/>Phone: 509-248-6380<br/>Website: www.allseasonsheating.com</p> | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>06/01/2004</p> | <p><b>Projects Completed</b><br/>3</p>  |
| <p><b>College Place Heating and Air Conditioning</b><br/>970 NE Rose<br/>College Place, WA<br/>Phone: 509-525-8073<br/>Website: www.cpheat.com</p>          | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>03/01/2010</p> | <p><b>Projects Completed</b><br/>3</p>  |
| <p><b>Northwest Electrical Supply Company (NESCO)</b><br/>111 S. 3rd Ave.<br/>Yakima, WA<br/>Phone: 509-575-0354</p>  | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p> | <p><b>Business Type</b><br/>Distributor</p>  | <p><b>Join Date</b><br/>09/21/2012</p> | <p><b>Projects Completed</b><br/>10</p> |
| <p><b>C-Mation LLC</b><br/>3565 S West Temple<br/>Salt Lake City, UT<br/>Phone: 801-268-1425<br/>Website: cmation.com</p>                                   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Motors and VFDs</p>              | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>04/01/2009</p> | <p><b>Projects Completed</b><br/>5</p>  |
| <p><b>Dayco Heating &amp; Air</b><br/>11 N. Auburn<br/>Kennewick, WA<br/>Phone: 509-586-9464</p>  | <p><b>Specialties</b><br/>HVAC - unitary</p>                                  | <p><b>Business Type</b><br/>Contractor</p>   | <p><b>Join Date</b><br/>04/01/2006</p> | <p><b>Projects Completed</b><br/>5</p>  |

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| <p><b>Orange Dairy Service, Inc.*</b><br/>2225 E Edison<br/>Sunnyside, WA<br/>Phone: 509-837-5078</p>  | <p><b>Specialties</b><br/>Farm and Dairy<br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs<br/>Other: Other Specialty</p> | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>12/01/2005</p> | <p><b>Projects Completed</b><br/>3</p>         |
| <p><b>Power Motion &amp; Industrial Supply</b><br/>215 S. 14th Ave.<br/>Yakima, WA<br/>Phone: 509-248-8220</p>   | <p><b>Specialties</b><br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Distributor</p>                         | <p><b>Join Date</b><br/>05/01/2006</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>APC Sales and Service Corp.</b><br/>132 Fairgrounds Road<br/>West Kingston, RI<br/>Phone: 714-513-7371<br/>Website: www.schneider-electric.com</p>   | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting</p>   | <p><b>Business Type</b><br/>Distributor<br/>Other: Other</p>        | <p><b>Join Date</b><br/>03/01/2012</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Twice The Light, Inc.</b><br/>7714 NE Hazel Dell Ave./P.O. Box<br/>65279<br/>Vancouver, WA<br/>Phone: 360-901-7710</p>                               | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>01/01/2012</p> | <p><b>Projects Completed</b><br/>2</p>         |
| <p><b>Hutchinson Electric Inc.</b><br/>3660 Washout Rd.<br/>Sunnyside, WA<br/>Phone: 509-391-0770</p>  | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>02/26/2007</p> | <p><b>Projects Completed</b><br/>11</p>        |
| <p><b>Total Control Electric Inc.</b><br/>5 East F Street<br/>Yakima, WA<br/>Phone: 509-453-1021</p>   | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>  | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>06/08/2006</p> | <p><b>Projects Completed</b><br/>9</p>         |
| <p><b>Rucker Electric LLC</b><br/>9001 Roza Hill Drive<br/>Yakima, WA<br/>Phone: 509-952-8339</p>  | <p><b>Specialties</b><br/>Lighting<br/>Motors and VFDs</p>  | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>10/16/2006</p> | <p><b>Projects Completed</b><br/>4</p>         |
| <p><b>Stoneway Electric - Walla Walla</b><br/>44 S Palouse Street<br/>Walla Walla, WA<br/>Phone: 509-522-1550<br/>Website: stoneway.com</p>                | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Distributor</p>                         | <p><b>Join Date</b><br/>06/08/2006</p> | <p><b>Projects Completed</b><br/>3</p>         |
| <p><b>Evolve Guest Controls</b><br/>85 Denton Avenue<br/>New Hyde Park, NY<br/>Phone: 516-448-1862<br/>Website: eguestcontrols.com</p>                     | <p><b>Specialties</b><br/>Other: Other Specialty</p>  | <p><b>Business Type</b><br/>Manufacturer - Rep<br/>Other: Other</p> | <p><b>Join Date</b><br/>06/01/2012</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Schneider Electric Buildings Americas, Inc.</b><br/>95 S. Jacson<br/>Seattle, WA<br/>Phone: 360-823-3040<br/>Website: www.schneider-electric.com</p> | <p><b>Specialties</b><br/>HVAC - unitary<br/>Lighting<br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>10/10/2010</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>Applied Industrial Technologies - Yakima</b><br/>909 N. Front St.<br/>Yakima, WA<br/>Phone: 509-457-1600<br/>Website: www.applied.com</p>            | <p><b>Specialties</b><br/>Motors and VFDs</p>   | <p><b>Business Type</b><br/>Distributor</p>                         | <p><b>Join Date</b><br/>10/01/2004</p> | <p><b>Projects Completed</b><br/>Completed</p> |
| <p><b>S &amp; S Electric</b><br/>315 White<br/>Walla Walla, WA<br/>Phone: 509-525-7720</p>   | <p><b>Specialties</b><br/>Lighting</p>  | <p><b>Business Type</b><br/>Contractor</p>                          | <p><b>Join Date</b><br/>05/31/2005</p> | <p><b>Projects Completed</b><br/>2</p>         |

| <b>Current Electric Solution</b>   | <b>Specialties</b>  | <b>Business Type</b> | <b>Join Date</b> | <b>Projects Completed</b> |
|--|---|----------------------|------------------|---------------------------|
| 11979 W. Hwy 12<br>Lowden, WA<br>Phone: 509-526-0161<br>Website:<br>www.currentelectricsolutions.com         | Controls<br>Irrigation<br>Lighting<br>Motors and VFDs<br>Other: Other Specialty | Contractor           | 12/14/2012       | Completed                 |
| <b>Applied Industrial Technologies - Pasco</b>   | <b>Specialties</b>  | <b>Business Type</b> | <b>Join Date</b> | <b>Projects Completed</b> |
| 1320 West A Street<br>Pasco, WA<br>Phone: 509-547-2421   | Motors and VFDs   | Distributor          | 10/19/2012       | null                      |
| <b>All-State Electric Co.*</b>   | <b>Specialties</b>  | <b>Business Type</b> | <b>Join Date</b> | <b>Projects Completed</b> |
| 1305 Heritage Hills Drive<br>Selah, WA<br>Phone: 509-941-8739<br>Website: telkonet.com                       | Lighting<br>Motors and VFDs<br>Other: Other Specialty                           | Contractor           | 01/20/2009       | Completed<br>25           |
| <b>Cooper Lighting</b>   | <b>Specialties</b>  | <b>Business Type</b> | <b>Join Date</b> | <b>Projects Completed</b> |
| 1121 Highway 74 South<br>Peachtree City, GA<br>Phone: 770-486-3092 x 3092<br>Website: www.cooperlighting.com | Controls<br>Lighting  | Manufacturer - Rep   | 11/20/2012       | null                      |



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## Appendix 6

### Communications

Pacific Power

## Communications 2012

### Energy Efficiency in the News – Washington

**Interest pays for Wapato police, fire gear, park lights** – Police will get new radios and safety vests while firefighters will see new breathing apparatus equipment, thanks to \$220,000 the city has received in interest on housing rehab loans. ...'90s," he said of the lights. "There is new (energy-saving) lighting available and tied in with Pacific Power, so we get a pretty good package." (*Yakima Herald-Republic*, March 21, 2012)

**[Pacific Power offering "watt smart" incentives to customers](#)** – Pacific Power is offering some incentives to customers to buy energy efficient items. (*NBC Right Now KNDO-TV*, May 18, 2012)

**[Pilot program designed to help reduce energy costs](#)** – More than 13,500 Pacific Power residential customers in Washington state will soon receive special home energy reports and have the opportunity to participate in a three-year pilot program designed to help them review their electricity consumption and explore ways to reduce costs through conservation and wattsmart strategies. (*Daily Sun News*, July 31, 2012)

**[Businesses urged to evaluate energy efficient lighting options](#)** – Being energy efficient can help businesses in many ways, according to Pacific Power and Evergreen Consulting Group representatives who spoke to Sunnyside business leaders yesterday morning. (*Daily Sun News*, Nov. 14, 2012)

**wattsmart Creative** (click on the hyperlinks below to see the creative)

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| <b>TV</b>  |
| <b>:15s</b>  |
| <u><a href="#">Ceiling Fan</a></u>                     |
| <u><a href="#">Home Sweet Home</a></u>                 |
| <u><a href="#">Lightbulb</a></u>                       |
| <u><a href="#">Kilowatts</a></u>                       |
| <u><a href="#">Bathroom</a></u>                        |
| <u><a href="#">Dog</a></u>                             |
| <u><a href="#">Santa</a></u> (November, December only) |

|                                   |
|-----------------------------------|
| <b>:30s</b>                       |
| <u>Front Door</u>                 |
| <u>Restaurant</u>                 |
| <b>RADIO</b>                      |
| <b>Radio</b>                      |
| <u>Save Energy</u>                |
| <u>Better Insulation</u>          |
| <u>Raise Your Thermostat</u>      |
| <u>Wattsmart Décor</u>            |
| <u>Wattsmart Drain</u>            |
| <u>Wattsmart Newspaper</u>        |
| <u>Wattsmart Sweater</u>          |
| <b>Print</b>                      |
| <b>English</b>                    |
| <u>Fantasy</u>                    |
| <u>Inefficient</u>                |
| <u>Goofy/Dog</u>                  |
| <u>Thermostat/Cocoa</u>           |
| <u>Warm/Hat</u>                   |
| <u>Business print - wattsmart</u> |
| <b>Spanish</b>                    |
| <u>Goofy/Dog</u>                  |
| <u>Thermostat/Cocoa</u>           |
| <u>Warm/Hat</u>                   |

|                           |
|---------------------------|
| <b>Wattsmart handouts</b> |
| <u>Summer handout</u>     |
| <u>Winter handout</u>     |